

A CINE-REGIO Report

In collaboration with Screen South and Green Regio

SUSTAINABILITY IN VISION

Emerging Film and TV Practices & Methodologies in Europe's Regions

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Introduction

Green-Regio is a Cine-Regio sub group which began in 2012, its aim is to share and promote knowledge working towards developing a common European approach to sustainability for the Film & TV sector based on the real experience across the European regions. This report represents a consolidation of recent practice and learning and follows on from the Green- Regio Interim Report in 2013¹ which undertook an audit of Green Production activity and strategy across Cine Regio members. Our intention here is present deeper research into various regions and to highlight opportunities and challenges as we embrace this important learning curve and cement a sustainable approach across the European audio-visual production sector.

Where it is crucial to benchmark carbon outputs there is also a need for simplicity to achieve impact in the creative industries and to engage and educate the next generation. By funders taking a unified approach that should be producer led in seeking effective delivery on the ground, they can leverage significant change if they put strategic elements in place. There is a necessity to show responsibility for compliance and to support and prepare producers for future liabilities both in terms of environmental risk and production impacts in relation to sustainable development for green film production.

Therefore it is important that strategic decision makers and producers understand how to make the best use of the current landscape of constraints in terms of the growing need for a more sustainable approach to film making. Producers and film funders should not see regulations and requirements as obstacles but should use them as competitive tool in their business strategy. Therefore, adding a financing and a corporate and social responsibility perspective to green filming is crucial. The need to educate the next generation is required now and is imperative if we are to support the rapidly changing landscapes of the creative industries in Europe.

This Sustainability in Vision focus report illustrates the analysis and recommendations set out in a series of case studies, with a focus on various working practices and opportunities across the film and media sector. They highlight commonalities and also broaden the Green-Regio discussion, so that others can learn and be inspired by what has been explored and what could be achieved for the future. This aim of this report is to support the movement across the European Regions towards a more sustainable audio-visual sector.

We are grateful to the consultants who have delivered the case studies and in particular to Melanie Dicks and her team at Greenshoot for leading this report and working with the contributors to collate and analyse the data and historical production information. This would not have been possible without the important contribution of the regional production companies and production crews as well as the Screen Agencies including Film i Väst - Sweden, Ffilm Cymru Wales Film i Skane & The Oresund Film Commission - Southern Sweden, Screen South and The Maidstone Studios in Kent. Also, a special thanks to Wallimage-Bruxellimage, Flanders Audio-visual Fund, Filmförderung Hamburg Schleswig-Holstein and PACA for sharing case-studies and findings on existing sustainable experiences.

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¹ <http://www.screensouth.org/content.aspx?parent=2&page=102>

1. Executive Summary

1.1 Scope

This report will be “a window” on different experiences based on recent case studies drawn from Cine-Regio members. Across Europe there are many examples of interesting and emerging practices in this area. This report is by no means exhaustive, but does provide specific data and measured observations on contrasting projects and operations which members are involved with. This is not a comparative study; these projects should be evaluated on their own individual merits and potential, as they each offer a unique insight into current practice and discussion. This report does not go into detail on all specialist working tools and models available. A recommended range of these can be found in links and resources. They are very useful and are freely available resources available on partner websites.

The simplicity of the presentation of this report belies the amount of work and research undertaken to present an easily digestible and fascinating set of case studies. Very often the main discussion in this arena is about carbon calculators. However, our focus here is broader and should provide a platform for discussion on what effective measures can be taken to actually deliver an on-going sustainable approach to delivery-effective production practice. The report looks across all areas of production support activity and examines why there is a need for producers and the film and television industry to prioritise a sustainable approach to their work with examples and recommendations as to how they might do that.

There are several areas highlighted in the report regarding collaborative ways to support the industry to be more sustainable in an accessible and cost effective way. It touches on setting the “Green Production” strategies and practices in the wider context of the audio-visual industries “Corporate and Social Responsibility” agenda. Several of the case studies flag up areas that might provide useful ideas including: a simple, robust and systematic methodological approach to sustainability, partnership awareness projects, standardising international certification, education and training and promoting the use of various accessible and compliant carbon tracking software for production.

1.2 Context

The latest report by the United Nations scientific panel on climate change shows that collective and significant global action is needed to reduce greenhouse gas emissions in order to keep global warming below 2°C. The report from the Intergovernmental Panel on Climate Change (IPCC) says that the longer we wait, the more expensive and technologically challenging meeting this goal will be.

Connie Hedegaard, EU Commissioner for Climate Action, said: "The report is clear: there really is no plan B for climate change. There is only plan A: collective action to reduce emissions now. And since we need first movers to set a plan into motion, we in Europe will adopt an ambitious 2030 target later this year. Now the question is: when will YOU, the big emitters, do the same? The more you wait, the more it will cost. The more you wait, the more difficult it will be."⁽¹⁾

Along with most other industries, the green agenda has become increasingly significant for the audio-visual sector in Europe in the past 5 years. The European Commission has prioritised this area of work. At least one-fifth of the EU budget for 2014-2020 will be climate-related.

The EU has agreed that at least 20% of its €960 billion budget for the 2014-2020 period should be spent on climate change related action. This represents around a three-fold increase from the 6-8% share in 2007-2013.

(1) http://ec.europa.eu/clima/news/articles/news_2014041401_en.htm

The EU is thought to be the first region in the world to 'mainstream' climate action into its whole budget. It should now become essential that a small amount of each new film or TV production has a line within its budget allocated towards sustainable practices and ethical supplies. Areas of sustainability in terms of business development locally, regionally and nationally is well placed to be high on future agendas for each of the Cine-Regio members.

European Union funding contributes to the goal of creating smart, sustainable and inclusive growth. The EU focus on this priority provides an important role in promoting climate action in all sectors of the European economy and catalysing the specific investments needed to reduce greenhouse gas emissions and strengthen resilience to climate change.

What differentiates the European audio-visual sector from the European economy in general is the profound impact that the industry exercises on the development of societies when it comes to democracy & pluralism, culture & heritage, education & employment, and health & safety. Thus, the European audio-visual sector can be said to be a special industry.

The ambition of the Green-Regio Interim Report of 2013 presented at Cannes, was to collate a general overview for the 55% of the members that participated. Greenshoot assessed the volume and sustainability agenda of the productions and found that during 2012 the 41 regional members of the Cine-Regio group produced over 2,600² film related projects, ranging from short films to Cannes winning features.

This report concentrates on a more in-depth cross section of member's activity in this arena. With this volume of projects it identifies the need for a unified, synergistic approach to sustainability strategies that include conducting baseline assessments, collating carbon footprints and employing best practices that make productions sustainable – but, importantly, are simple for producers to implement.

Progress has been made in the past 3 years but how far have we really come in comparison to other industries? If the total business value of the European audio-visual sector is calculated at over €96 billion³, this equates to several global multinational corporations combined.

All those corporations will have (and have had for many years) a commitment to CSR - Corporate Social Responsibility. It is an intrinsic part of their business strategy. CSR plays a vital role internally and externally in defining what the company stands for - to their customers, stakeholders and staff. It impacts on every single area from the supply chain to employment to the environment and business development. Accountability and transparency are crucial and it would be unthinkable for a large corporation to ignore CSR. The audio-visual sector should be treating these issues with the same level of commitment and application that corporations have done for years.

The demand for action will not just come from within our industry but through changing legislation, pressure groups, actors and the end user - the audience, who will expect our industry to behave in a responsible and sustainable way. It's vital for the basic reason that it makes ethical and business sense. Being environmentally responsible can often be a way to save money. And yes, as an itinerant business applying sustainability practices can be a challenge for film-makers. But importantly it's been proven that these measures do not interfere with the creative process and as shown by some of the case studies, can actually enhance it. Invariably they are simply small changes in working practices for film crews that will make a big difference.

The key is education and training, with smart and accessible tools and accepted practices to maintain progress. The expectation is there from many in our industry. Huge strides have been made regionally and nationally in the past three years. The subject of sustainability in film is now one that is heard frequently – very different to even 3 years ago. The positive working partnership and feedback from the production partners who have contributed to this report is testament to that.

² Source: Interim Green-Regio Report May 2013 (collated from questionnaire to members)

³ Source: http://ec.europa.eu/clima/policies/finance/budget/index_en.htm

1.3 Sustainable Development

The term, sustainable development, was popularized in “Our Common Future”, a report published by the World Commission on Environment and Development in 1987⁽¹⁾. Also known as the Brundtland report, “Our Common Future” included the “classic” definition of sustainable development:- “development which meets the needs of the present without compromising the ability of future generations to meet their own needs.”

It contains within it two key concepts. The concept of ‘needs’, in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organisation on the environment’s ability to meet present and future needs.

Sustainable Development is not about fixing industry challenges and current working practices overnight but a sustained improvement over time from business development to the social, environmental and economic pillars.⁽¹⁾

1.4 Case Studies Contributors

The case studies included here represent an in depth insight into what is taking place across the Cine-Regio region in this area of work. They are a snapshot of existing practice across a range of films and regional partners and identifying where good practice happens and where improvements can be made. Shared learning for wider benefits being at the heart of the proposal. Members were invited to undertake partnership focus research or contribute their own case study.

Three of the case studies worked with Greenshoot on Film or TV production - Film i Väst, Ffilm Cymru Wales Film i Skåne /Oresund Film Commission, Southern Sweden. This contrasted with Screen South & The Maidstone Studios who focused with Greenshoot on facilities, training and their organisational approach.

The further four case studies here illustrate a selection of regional approaches and achievements; Flanders Audiovisual Fund (VAF) present their work with Zero Emission Solutions (ZES), focusing on their programme “e-Mission” illustrating how they are supporting and evolving sustainable regional industry. Wallimage-Bruxellimage illustrates a single production in partnership with Sophie Cornet. Independent eco-consultant, Birgit Heidsiek and Christiane Scholz share the experience of establishing Hamburg Schleswig-Holstein’s Green Shooting Card initiative. The PACA region presents the experience of their first entire green production shoot in the region.

The proposed outcome of the Sustainability in Vision report is to give a focused overview, make practical suggestions and communicate findings so that sustainable development can be built upon and improved upon over time.

(1) http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.pdf

2. Research & Methodology

2.1 Overview

There are eight case studies in this report, yet there are common threads that run between all of them. Variations in the size of the production budget or the scale of the production do not necessarily mean that sustainable best practice measures change dramatically. There are a number of common denominators that will always apply. The **Recommendations** section on page 12 goes into detail regarding these but broadly speaking there are three basic starter requirements for a successful sustainable production:

1. Let the crew know the desire for a sustainable production comes from top management
2. Allocate an amount in the production budget for sustainability
3. Have a green production runner on set throughout

To see a list of the most popular sustainability practices that were implemented on the case studies see **Common Findings, 2.2.5**, below.

The following section 2.2 to 2.6 presents a précis of each case studies approach with full case studies presented in section 4.

2.2 Greenshoot Case Studies Research Approach and Common Finding

Greenshoot undertook four of the regional case studies. Each case study projects analysed by Greenshoot were given the same methodological approach. The Environmental, Social and Economic pillars of sustainability were the three defining areas and helped lead to the conclusions of exactly what the impacts were, challenges, suggestions for improvements and future support needed. It is essential to note that the boundaries of the case studies are fundamentally governed by the data and support provided and the time allocated to each task. Emphasis is given to a baseline assessment. The data collated is retrospective and the productions had either finished production or were being broadcast during the assessments.

The timeline for the project began with an initial meeting with each film commission or region in understanding the nature of the production or project. Once the scope was agreed a contact within the region or on the project was allocated to support the team at Greenshoot with each case study. It was important at the outset to make clear to productions, producers and key crew who supported this body of work that sustainability in the creative industry is not about one department or just waste and/or energy - but a broader overview of behaviour, social impacts and economic factors. Key documents like call sheets, crew charts, and budgets were vital to us building a full picture of the production to allow us to calculate a precise carbon footprint and collate a broad sustainability overview.

Methodology

A systematic approach was given to each case study. It is by applying the same criteria and technical analysis to each, that further analysis can be undertaken that will give a broad overview of data and understand which areas are being highlighted for discussion to all members. Greenshoot then cross reference all the case studies in conjunction with over 110 projects that they have supported across Europe and internationally over the past 4 years. (See Table 1)

The table below relates to the four case studies that Greenshoot undertook with Film i Väst, Ffilm Cymru Wales, Film i Skåne and Screen South.

Table 1

| Tracking scope & methodology | |
|------------------------------|-------------------------------------------------------------------|
| Overview of each project: | Time, scale, contributions, legislation |
| Systems in place regionally | Legislation, waste, hazardous waste |
| Producer focused | Questionnaires and interviews on sustainable practices |
| Education and training | On the ground local level focus on the production company & crews |
| Social | What are the social impacts - regionally, locally |
| Environmental | Tracked through the START system (see appendix 3) |
| Economic | Employment, inward investment |

2.2.1 Case Study 1 - Film i Väst & Bob Film

Film i Väst is involved in 30-40 feature film co-productions each year, it is one of the most significant regional film funds in Europe and the most significant source of funding for films in Sweden, after the Swedish Film Institute. It acts as a co-producer, part owner and financier of feature, short and documentary films, drama for TV, and offers many additional resources for film production. *They look to identify tools that can assist the production companies in their work for sustainable film production*

It was important for Film i Väst to build on their initial comments from the interim report written in 2012 regarding their ambition to focus on education and best practices and the desire to see what gaps could be supported moving forward. Greenshoot undertook a retrospective evaluation on the Bob Film production of *Min Sa Kallade Pappa* saw the majority of its production shoot in Trollhättan. The exterior filming was completed in April and May and the interiors in June.

2.2.2 Case Study 2 Ffilm Cymru Wales and Rainy Day Films

Ffilm Cymru Wales was established in 2006 as the national body for film in Wales. It has a mission to grow the Welsh film industry and talent pool, increase audiences and the diversity of films for audiences, utilise film as a tool for community regeneration and develop greater commercial and cross-platform opportunities from film projects.

They support a broad policy on film education to complement their central priority of creating and maintaining a dynamic film culture across Wales. The aim is to enhance film literacy for all and stimulate an appetite for specialized, cultural and non-mainstream films.

Greenshoot undertook a retrospective analysis of production activity on the Ffilm Cymru Wales supported Rainy Day's film "Another Me" which premiered at The Rome Film Festival in November 2013.

2.2.3 Case Study 3 - Film i Skåne & Oresund Film Commission, Southern Sweden and Filmlance – The Bridge 2

Regional film fund Film i Skåne covers the area of Southern Sweden and Greater Copenhagen, the OFC is part of the Film i Skåne company. Film i Skåne is a regional centre for film and video with the task of promoting all aspects of films. Commissioned and financed by Region Skåne and the Swedish Film Institute, Film i Skåne has been in operation since 1995. Since October 2009, Film i Skåne AB is part of Business Region Skåne.

Greenshoot undertook a retrospective analysis of *The Bridge 2* with Filmlance, one of Sweden's largest independent production companies and since its establishment in 1988 has produced high-end television and feature films. The shoot took place over 26 weeks with a total number of shooting days for both 1st and 2nd units of 200 days. Principal filming locations were Malmö (Sweden) and Copenhagen (Denmark). The production was based in Malmö with studio shooting at Ystad Studios with its 3,500 sq meters of production studio and offices, where the main set builds were all built.

2.2.4 Case Study 4 - Screen South (UK) & Maidstone Studios

Screen South is a Creative Development agency delivering and supporting innovative projects across screen-based media and the wider cultural and creative industries. It is a resource and broker that helps people get their ideas off the ground and supports delivery locally, nationally and internationally.

Green Shoot undertook a sustainable analysis snapshot of the Maidstone Studios located an hour away from London in Kent, near the channel ports of Dover and Folkestone. It is the UK's largest independent studio complex and has come a very long way since the current owners rescued it from demolition in 2002. The Studios is an on-going business concern that is alive to the need to take a sustainable approach to development.

Another industry partnership is illustrated by the Screen South & Greenshoot's Green Runner Training at Pinewood Studios. The first training course of its kind prepared by Greenshoot in partnership with Screen South was held in November 2013 with support from Creative Skillset and the BFI.

2.2.5 Greenshoot's Case Studies Common Findings

There were commonalities found across the case studies. These examples of best practice show that progress is definitely being made and they can go towards forming the basis of sustainable production moving forward.

- Establishing a recycling system in the production office
- Use of recycled paper
- Emailing call sheets on all productions
- Use of FSC wood in set construction. However, chain of custody not established
- Donation of set and/or props on wrap
- Recycling of on set waste as legislation required it
- Respect for the environment during location shooting
- Employing local crew
- Reduce food miles by sourcing ingredients locally
- Ban plastic water bottles

2.3 Case Study 5 - Flanders Audiovisual Fund

Siebe Dumon from Flanders Audiovisual Fund has led the green agenda for VAF over recent years and has successfully developed a partnership approach with the Belgian eco consultancy company Zero Emission Solutions (ZES). Their focus has been on how to evolve towards a more sustainable film production industry in Flanders. e-Mission is Flanders Audiovisual Fund's research and coaching project on the ecological sustainability of the local film production industry.

The overall aim was to develop a hands-on and efficient program to green the Flemish film sector. Hence, some very concrete questions were at the core of the development process: What actions are most polluting? Where lie the biggest opportunities? What can we do to evolve towards a more sustainable film production? And in the long term: what are the results of our efforts to produce in a more sustainable way? These questions led to developing three tracks that are presented in the case study;

- Collecting data on the carbon emission of Flanders' film production
- Defining concrete actions to help film crews to produce in a more sustainable way
- Developing coaching tools in order to sensitize and educate Flanders' audio-visual professionals

2.4 Case Study 6 - Wallimage-Bruxellimage

Noël Magis from Wallimage-Bruxellimage has worked in partnership with consultants Sophie Cornet & Philippe Pierquin to focus on the environmental approach and impact on one film. They present a case study into a single ecological film production, *Une chanson pour Ma Mère*.

This particular initiative was developed by Sophie Cornet, an independent eco-consultant. Together with the Federation Wallonia-Brussels, she edited (in French) a small guide on eco-cinema, distributed by the Centre du Cinéma in 2011. This first approach was pedagogical, meant to initiate a declaration of faith.

Sophie, whose work centres on the entertainment and culture industries, also works for La Monnaie. She deals with the environmental management of the institution and the ecological impact of the shows developed there. She was able to test her mission to make shoots more “ecologically responsible” on *Une Chanson pour Ma Mère*. With support from Bonne Pioche, Novak and Alizée, she set to work on her first long-term project.

Their approach focuses on:

- Regional relevance
- Methodological approach
- Key Findings
- Economic
- Stakeholders (who was involved)
- Conclusions & further suggestions
- Findings on overall process

2.5 Case Study 7 - Filmförderung Hamburg Schleswig-Holstein

Eva Hubert Director of the Filmförderung Hamburg Schleswig-Holstein initiated the strategy of the Green Shooting Card in partnership with consultants Birgit Heidsiek and Christiane Scholz. In 2011, Hamburg was the European Green Capital and Filmförderung Hamburg Schleswig-Holstein (FFHSH) wanted the film sector to make a contribution and to provide the sector with tools to take the agenda of sustainable film and television production forward. The different approaches taken in Europe gave rise to the idea of initiating the Green Shooting Card. Today FFHSH is working on making green standards a reality and to ensure best practices for the industry. Their case study focuses on:

- What is the Green Shooting Card?
- Who is the Green Shooting Card issued to?
- Free Carbon Footprint Calculator & recycling of props
- Feedback from the industry and Moving on!

2.6 Case Study 8 - PACA France

PACA is a partner in Ecoprod, a network focused on the green production agenda. Their case study focuses on the screen adaptation of the successful TV serial “Minuscule”, a franchise with two pre-existing TV series on air. “Minuscule – Valley of the Lost Ants” is a hybrid feature film mixing real footage and animation, all in 3D and cinemascope. The film is the first movie to be released that was entirely shot on PACA/Provence-Alps-Riviera regional green standards. Since 2010 the Regional council of PACA has launched a series of measures to help productions and shoots to turn green. Their approach includes:

- Financial and technical support
- Supporting environmental savings
- Show how preserving the environment does not mean increasing your film budget
- Using the Ecoprod calculator
- Training

3. Recommendations

The Sustainability in Vision focus report represents reflections from a number of the members of Cine-Regio on sustainable practices within the audio-visual sector. It is clear from the findings that there are synergies from all. Finding similarities that can be shared and beneficial to all and for future generations is becoming clearer and is something that can be built upon.

There is clear value in building stronger support networks in terms of a sharing of best practices. It would be useful to have more knowledge transfer activity. This could include green focused literature, studies or eco promotional document, the range of carbon calculators on the market and how they relate to the business of the audio-visual sector locally, regionally, nationally and internationally. How can we move forward and share advice on a practical level as we have many commonalities?

3.1 Need for Effective Training and Education

Each case study has highlighted the need for effective training and regions are taking innovative an interesting approached to its delivery that can be built upon.

- Train the sector (location management, schools) *Sophie Cornet (Independent Consultant, Wallimage-Bruxellimage) see the case study from Wallimage-Bruxellimage within the report.*
- Training from the grassroots up is already underway in the UK. Creative Skillset Co-funded Greenshoot and Screen South to deliver a ground breaking accredited training. The Green Production Runners Training Course is a nationwide programme focusing on embedding sustainability practice and how to follow a full environmental management programme using the sustainability framework of the BS8909 see appendix. A database of trained 'green' production coordinators/PA's or runners is now underway.
- VAF's e-mission is successfully embedding education and training as part of their funding programmes with a direct regional approach to tools and resources.
- Filmförderung Hamburg Schleswig-Holstein has during 2013 offered Best Practice seminars featuring hands-on demonstrations of how to save money through sustainable production methods and will continue training efforts in 2014.
- PACA region has been delivering green led training programmes since 2010 - targeted at technicians and production decision makers.

3.2 Developing Certification Programmes in Europe

A local, regional, national and international approach to a certification programme would be of benefit to the whole supply chain within the audio-visual sector, one that links into funding opportunities and the commissioning processes.

"The process must be structured and the tool offered through a film organisation, both in order to give the process credibility, and also to be able to access the necessary tools and budgets. In the future, this question needs to be further looked into with the tax shelter authorities and developed more leading up to a shoot (integrated into the financing)"..” *Sophie Cornet, Wallimage-Bruxellimage case study.*

To take this approach forward would require a formal certification process that works for each area of the industry or region.

What certification programmes exist already that could be included into a new certification award?

There are certification programmes being adopted by other industries that could be reviewed and considered for a new potential audio-visual certification programme - one that could benefit all regions and be adapted accordingly.

- The Eco-Management and Audit Scheme (EMAS) is the EU's voluntary environmental management instrument. Since 2001, EMAS has been open to all economic sectors, including public and private services (Regulation (EC) No 761/2001 of the European Parliament and of the Council of 19 March 2001). In addition, EMAS was strengthened by the integration of EN/ISO 14001 as the environmental management system required by EMAS, by adopting an attractive EMAS logo to signal EMAS registration to the outside world and by considering more strongly the indirect environmental impacts, such as those related to financial services or administrative and planning decisions.
- An EU certification programme could be adopted using the framework of existing environmental standards the family of ISO14001, BS8909, BS8901 now ISO20121, the sister standard for sustainable event management.
- The Green Shooting Card is issued by Film Foerderung Hamburg Schleswig-Holstein (FFHSH) for individual projects by national and international producers who verifiably shoot their films on location in an environmentally friendly manner is endorsed by the regional authorities and bears real weight with regard to support and working production relationships
- Regional policies specific to commissioning bodies could be included as standard within an international certification programme. This benefits local and national funding criteria.

3.3 Policy Suggestions for Further Discussion

- A strategy for sustainability that is embedded into the funding application and award process that is introduced over time. What could be achievable in year 1, year 2 and year 3 as practical sustainable development?
- A sustainability strategy needs to come from the very top to convince even the most sceptical that it is a serious ambition of the production, region or funder. It is a fixed policy.
- Good, better, best practice guidelines at policy level.
- A green tax credit for producers sitting within the recoupment financial business plan. If there are additional associated costs on certain supply chains this can be accommodated for within the application process with money back or a reduction in taxes.

3.4 Ethical & Environmental Benefits versus Traditional

- Traditionally for productions it costs more to purchase compostable products for catering supplies than to purchase traditional polystyrene but one ethical driver that has won recently over cost is compostable catering supplies which will reduce the production's carbon footprint as it composts back to the ground. Polystyrene does not compost and stays in the ground for thousands of years, as well as leaking toxic chemicals - but is a cheaper option. Universal Studios and all sister TV companies have now banned polystyrene from all their productions and regional suppliers of compostable catering products are reducing these associated costs as take up increases.
- Hybrid cars and innovation in domestic transport is seen as the way forward and much is being done globally in the development of alternative powered vehicles. It is worth noting that Sweden leads the world in per capita sales of 'green cars'.
- Traditional portable generators run on diesel which are used for location filming and unit bases are seen as polluters and environmentally damaging to residential communities and the environment. These traditional diesel generators are slowly being replaced by solar or hybrid generators. In the US and parts of the UK these new clean tech generators show an

encouraging cost saving on budgets in fuel spend. Environmental impacts are also reduced when community filming takes place, as they are also silent and less polluting. Huge leaps in technology have taken place even in the past year with this new family of hybrid generators.

3.5 Carbon Calculators

There are several Carbon Calculators which work well for the purpose they have been developed or applied to. There are some calls for a single calculator for the Industry. However this is not really a major priority as the decision regarding which calculator works best should really be in the hands of the producers and therefore market led. There are Carbon Calculators which have specific regional rationality and those which are more widely sector focussed. Most of the tools are either not film specific or not pan European. Tracking is absolutely the key and fundamental to the process otherwise there is no measure for continual improvement and this follows the European code for sustainability.

The priority is to make the tools available and accessible and seen as “tools of trade” which are linked to the top and bottom line decision making. The focus needs to be on delivery practice, toolkits and checklists, supporting the sustainability practice on a production alongside health and safety and risk assessments etc. There are several resources cited in Appendix 6 of this report and the VAF eMission Case Study illustrates several resources. Each case study also highlights the Carbon Calculator used.

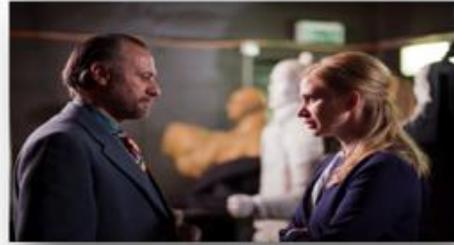
3.6 Harmonising Successful Sustainable Production Strategies

The implementation of a sustainability strategy onto a production is dependent on many elements. The strategies below form a framework for a potential harmonisation of sustainable production - in effect a sustainability toolkit from which to build a set of practices and strategies across the regions.

1. Future budget templates could have a section for sustainability. Even if the amount is very small, it communicates the message to senior management that the funder or financier is taking the issue of sustainability seriously. US TV studios allocate a minimum of \$20,000 to sustainable and green practices for each show or production. This does not usually include green transport but green runners, foot printing, ethical supplies and alternative costs of hiring generators which although more expensive to hire in the UK and US, save over 30% in fuel costs - and a similar amount in CO₂e from being pumped out.
2. Ensure top management – producers, directors, talent – are committed to the ambition of having a sustainable production and communicate that to the crew.
3. Educate film-makers, from runners to producers, on the practicalities of a sustainable programme internationally.
4. Nominate a practical scope of ‘what can be achieved’ for each production during the pre - production process; what is practical to the budget, stakeholders and time allocated
5. A ‘Green’ Production Memo drawn up and distributed at the same time as funding production contracts are issued - and then again at green light stage. This means that everyone is on board from the start of the production and it sends out a very early message that the production is taking sustainability seriously (even small steps & initiatives should be communicated).
6. Provide a simple green regional guide listing legislation, ethical suppliers and hints on best practice. There are many existing already regionally, and listed within this report.
7. Ideally, every production should have a mid-show sustainability assessment. The reason is simply that during most productions there can be a slump in crew energy half way through and one of the effects is that the green strategies implemented can become neglected or put to one side. By producing an update on the environmental performance up to that point reminds all crew why they were participating in the first place.

8. Appoint a Green Consultant regionally to support and overview the processes.
9. Training junior production crew to be environmental stewards is one way of guaranteeing there is someone responsible for all issues during the shoot.
10. A Sustainability Policy on each company's website which would publicly declare their commitment to managing their business in a sustainable way. This would send a clear message to their staff, stakeholders, regional crews and supply chains that they believe sustainable practices should be at the heart of all areas of operations and business decisions.
11. Implementing sustainable practices can mean a cost saving for the production company. Low carbon generators are becoming more accessible internationally for utility and unit base lighting. They are seen as more expensive to hire but the fuel spend can be as much as a 60% saving (in the UK). Repurposing assets and sets instead of paying to have them removed in skips can support the bottom line and by repurposing and recycling there is a saving in carbon emissions being released so the footprint is also reduced.
12. Once a sustainable production has finished everyone to take that learning onto the next production. A first step is to incorporate a sustainability meeting alongside the 1st key weekly production meeting on the next project and workshop the main environmental impacts with the key crew e.g.: production designer, construction manager, location manager and production manager. Then write up what is achievable and practical to the crew within the framework of the budget and schedule. A Green Memo issued to crew as they join and again just before filming starts is a really practical way to communicate the producer's commitments to the cast and crew.
13. Initially engage key crew and departmental heads at the start of pre production. Giving the same time and care to sustainability and environmental best practice that productions give to health and safety is a good benchmark. Engaging crew with something tangible like a full on-set recycling programme with departmental rewards has been a great success on past shows. It is something practical and responsible that all cast and crew can get on board with – so long as there is buy in from top management. Looking at an asset redistribution programme to reduce material cost, storage costs and legacy would also be of benefit.
14. Look at the possibilities of green procurement, green product placement and companies offering greener travel early on in finance stages to secure marketing and funding opportunities for the next series and following productions.
15. Donate unwanted film sets on wrap to other productions, theatres, etc. Save money on removal costs and give a 2nd life to a set.
16. Studio versus Location filming. The very nature of film scripts means they will always have elements of exterior scenes that (sometimes) give audiences landscape scenery to enjoy. This can also promote tourism and inward investment into local – and sometimes national - communities. In terms of what is perceived as the most sustainable approach from a carbon modeling perspective, then studio filming will always win over location shooting in terms of environmental best practice. No community impact, less pollution, reduction in travel and waste, everything contained on one fixed site. A studio has many factors in its favor. But ultimately of course, the decision is a creative one – what works best for the script?
17. Waste management - best practice is seen as *reduce, reuse, recycle*. As legislation differs regionally and nationally, waste programmes are embedded either by local governments or private companies and landowners. The most visible first step to any sustainability strategy is to communicate what the production will be doing with the waste - the crew and, ultimately, their supply chains can then follow this.

4. Cine-Regio Regional Case Studies



4.1 Case Study - Film i Väst (Sweden)

Film i Väst is a regional film fund located on the Swedish west coast in Västra Götaland. Its main headquarters are situated 70km from Gothenburg in Trollhättan, the country's leading film city, affectionately referred to by locals as Trollywood.

Film i Väst is a company wholly owned by region Västra Götaland, the Regional Authority of Västra Götaland. The Regional Authority's intention is that the work of Film i Väst will make a substantial contribution to establishing Västra Götaland as the foremost film production region in northern Europe. Film i Väst's database lists qualified film workers living in the region, and includes contact information for more than 450 crew members and an additional database to search from over 3.800 extras.

Why did you want to contribute to the Sustainability in Vision report?

Film i Väst look to identify tools that can assist the production companies in their work for sustainable film production As part of Region Västra Götaland, Film i Väst will promote the development on environmental issues through collaboration that involves contributing with ideas and support."

Film i Väst's database lists qualified film workers living in the region, and includes contact information and CV's for more than 450 crew members and additional databases to search for qualified suppliers and over 3800 extras. Sustainable and ethical suppliers in the database will have a green dot next to them.

Louise Martin, Training & Education, Film i Väst.

Bob Film Sweden AB - An Independent prizewinning production company based in Stockholm, Sweden.

Established in 2000, Bob Film is an independent production company owned and run by producer Jan Blomgren (CEO) and focuses primarily on feature films and TV drama. Bob Film is known for its mix of commercially successful and award winning feature films, internationally recognized television dramas and outstanding short films. It aims to be the best company for creative filmmakers and to provide the best possible conditions for them to realise their vision in a way that combines business interests with quality content. What defines Bob Film is the people you work with.

Regional environmental overview

Sweden is a world leader in terms of recovering energy from waste and its approach to low carbon innovation. Each year, its two million tonnes of rubbish, along with extra imports, are almost completely recycled, with only 4% of all waste going into landfill. This remarkable achievement should act as an example to other countries that produce massive amounts of waste - most of which they send to be buried in bursting landfill sites. Regional legislation also means that all restaurants and hotel are obliged to recycle their waste. Sweden's model offers a real route to sustainable living.

Film i Väst - Bob Film Case Study - Min Sa Kallade Pappa

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|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INTRODUCTION TO CASE STUDY | The Bob Film production of Min Sa Kallade Pappa was in development for 6 months with the script development taking over a year to complete. The 3-month prep period for filming was carried out at the Bob Film office in Stockholm. The production itself was a 40 day shoot over 9 weeks. The exterior filming was done in April and May and the interiors in June. 30 days was shot in Trollhättan and 10 days in Stockholm. The main crew numbered 56, with 28 miscellaneous. The set construction took a total of 25 days with a 2 man construction crew. Our thanks go to Jan Blomgren the producer for the access to the film data analysis and special thanks to Andreas Emanuelsson for all his support during the analysis process. |
| SCOPING THE PROJECT | Special thanks also goes to Katerina Krave and Louise Martin at Film i Väst for support with the regional Focus Report. It was important to understand their initial comments from the interim report written in 2012 regarding their ambition to focus on education and best practices and the desire to see what gaps could be supported moving forward. |
| ENVIRONMENTAL | <p>Film i Väst and the studio has a transparent recycling system in house for production offices and sound stages. It is worth noting that all the hotels, restaurants in Trollhättan and Vänersborg where Bob Film shot, recycle their waste. Waste and recycling is taken care of by the municipality. It's financed by fees paid by property owners. The municipality hands out recycling guides how to handle your waste. You get a brochure in your postbox every year and there is an app for your mobile phone as well. The guide is not yet in English. They will work on a translation later this year.</p> <p>Diesel generators were used at bases, there were no eco friendly biodiesel portable generators used. The Callsheet, although emailed to the crew, the actors had printed versions which is standard practice. Due to smart phones there is a movement when the call sheet is emailed out to the cast and crew the next days unit base address and zip or postcode is added to the email. This way some crew members that do not need to print off call sheets can gather their information efficiently without printing. There was a sharing of some departmental trucks which was a cost saving.</p> <p>The actors were collected either by the runners or taxis, which is efficient in terms of not having designated drivers sitting around all day waiting in their cars. The cars used by production were small diesel cars - there were no eco friendly vehicles used. There was no catering company per se. Food was either delivered to set or cast and crew went to restaurants for lunch. Water bottles were purchased daily and returned for small deposits, a strategy which works well across Sweden.</p> <p>In terms of how the construction strike was handled, as much as possible of the film sets will be reused where possible for the future - for example, window frames, doors and door furniture were the main items kept for reuse. The construction waste was placed in municipal skips which is financed by fees paid by the property owners. Costumes are being stored where possible and any clothing left over was donated to charity shops.</p> <p>All the daily waste on the production was sorted where possible into coloured sacks green sacks for composting and special containers for newspapers, packaging, glass and metal. If waste was put together in 1 bag it was then sorted as bulky waste and then burnt as waste to energy. So there is thought given to the waste streams and separation. In Trollhättan 23% of household garbage is used for the production of biogas, and a fair amount of the city buses are using biogas as fuel.</p> |
| SOCIAL | <ul style="list-style-type: none"> * Had a non discriminatory employment policy * Provided employment to the local population * Respected and maintained the environment where they were shooting * Made local communities aware of filming for potential noise and traffic increasing * Followed a strict health & safety policy |
| ECONOMIC | Film i Väst directly contributes to the growth of the creative media industry, the education of its film workers, and the development of new talent in the region. Now involved in 30-40 feature film co-productions each year, it is one of the most significant regional film funds in Europe and the most significant source of funding for films in Sweden, after the Swedish Film Institute. It acts as a co-producer, part owner and financier of feature, short and documentary films, drama for TV, and offers many additional resources for film production. |

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| <p>CONCLUSIONS & RECOMMENDATIONS</p> | <p>Working alongside Film i Väst and Bob Film was a great experience for the team at Greenshoot. We ran the production's data through our Sustainability tools, START, (Sustainability, Tracking, Asset, Repurposing Tools.) This is an educational system we use for all our productions. It takes the user through any creative project, of any budget size and adds weighting points to processes and departmental supply chains, guiding the user in how to behave in a more responsible and sustainable way.</p> <p>It may be worth considering a joined up approach in Sweden across all the regions that benefit not just one area or region but the audio-visual sector in the country. Please see final conclusions at the end of the report.</p> <p>Recommendations:</p> <ol style="list-style-type: none"> 1. To look at communicating a Sustainability Policy for the Film i Väst website which would publicly declare their commitment to managing their business in a sustainable way. This would communicate a clear message to their staff, stakeholders, regional crews and supply chains that they believe sustainable practices should be at the heart of all areas of their operations and business decisions. 2. An education programme would benefit Film i Väst and the production industry in the region. (See item on training at the end of this report.) 3. In terms of the production process, there is obviously desire from producers, production company and crew to build on the good work practices already in place. It would benefit Bob Film to have a 'Green' crew memo at the start of each production, highlighting areas that they expect attention from their crew and employees on the production and to have a public statement about Sustainability on their website. 4. Low carbon innovation & portable silent generators along with a full transparent Environmental Management System would work well regionally and could provide a cost saving to the producer and film company. (Please see Appendix 4.). 5. Implementing sustainable practices can mean a cost saving for the production company. Low carbon generators are becoming more accessible internationally for utility and unit base lighting. They are seen as more expensive to hire but the fuel spend can be as much as a 60% saving (in the UK). Repurposing assets and sets instead of paying to have them removed in skips can support the bottom line and by repurposing and recycling there is a saving in carbon emissions being released so the footprint is also reduced. |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



Sustainability | Tracking | Asset | Redistribution | Tools:
Film I Vast, Min Sa Kallade Pappa

PRODUCTION SUMMARY

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|--------------------------------|----------------------|
| Case study commissioned by | Film I Vast |
| Country | Sweden |
| Production | Min Sa Kallade Pappa |
| Genre | Film |
| Production company | Bob Film |
| Greenshoot commencement date | 28th Oct 2013 |
| Cast & crew average daily nos. | 70 |
| Production filming period | 40 days |

EMISSIONS BY STAGE

| Stage | Tonnes CO ₂ e | Percentage % |
|-------------------------|--------------------------|--------------|
| Development | 0.00 | 0.00% |
| Pre-production | 25.95 | 22.69% |
| Production | 154.25 | 77.31% |
| Post-production | 0.00 | 0.00% |
| Premiere & Distribution | 0.00 | 0.00% |
| Total | 180.2 | |

EMISSIONS BY ACTIVITY

| | Tonnes CO ₂ e | |
|-------------------------------------------------------------|--------------------------|-------------|
| Energy: Grid | 12.19 | 6.76% |
| Energy: Generators | 33.07 | 18.35% |
| Flights: By origin | 13.01 | 7.22% |
| Flights: Helicopters | 0.00 | 0.00% |
| Business travel | 9.08 | 5.04% |
| Staff commute | 15.83 | 8.78% |
| Freight | 16.67 | 9.30% |
| Hotels & accomodation | 36.60 | 20.31% |
| Office procurement | 1.60 | 0.89% |
| Materials | 42.06 | 23.34% |
| Waste & recycling programmes <small>Not in scope</small> | 0.00 | 0.00% |
| Composting programmes <small>Not in scope</small> | 0.00 | 0.00% |
| Total | 180.2 | 100% |



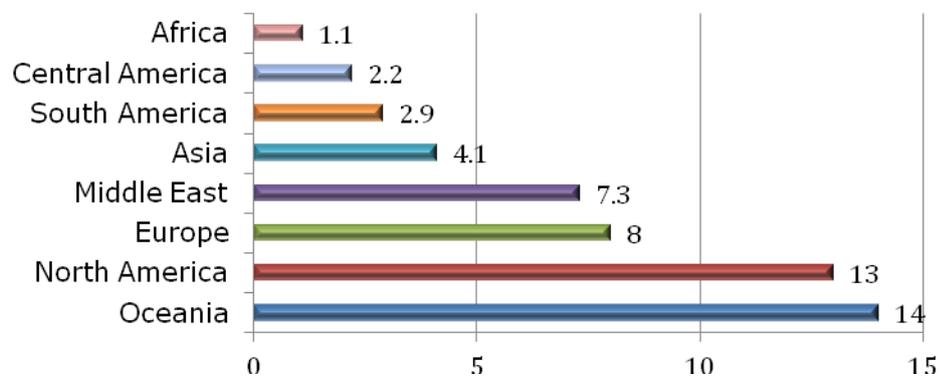
Sustainability | Tracking | Asset | Redistribution | Tools:
 Film | Vast, Min Sa Kallade Pappa

| | |
|------------------------------------------------|-------------------------------|
| CONSTRUCTION & STUDIO BUILD IN DAYS | NO OF SHOOTING DAYS |
| 25 DAYS | 40 DAYS (OVER 9 WEEKS) |

| NOT IN SCOPE | REASONS |
|----------------------|-------------------------------------------------------------------------------|
| Recycling programmes | Unable to connect with waste company and not tracked during production period |
| Food Composting | No formal composting programme was undertaken during the filming period |
| Asset tracking | Repurposing assets will reduce a productions footprint |

| KEY METRICS | |
|---------------------------|--------------------------|
| | Tonnes CO ₂ e |
| Total emissions | 180.20 |
| Emissions per no. of crew | 2.57 |

Territorial Emission per Capita (tCO₂/person)



Further suggestions & recommendations for Film i Väst and Bob Film

- Sustainability policy for Film i Väst and Bob Film and their stakeholders and interested parties
- Green Crew memo released at the beginning of production identifying what the producers will expect and measure they support. This is communicated to the cast and crew.
- Nominate and train a green runner or PA to support the production processes and coordinate sustainability strategies
- Sustainability strategy for each production
- Budget line allocated to funding programme for sustainability
- Energy and fuel reduction campaigns
- Time allocated at the beginning of production process to sustainability
- Have a transparent recycling system on location

Project contributions

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| <p>Film i Väst Katerina Krave, CFO Louise Martin - Training & Education</p> | <p>Bob Film Jan Blomgren - Producer Andreas Emanuelsson - Production Manager Jonathan Ridings - Location Manager Frank Zandhoff - Construction Manager</p> |
|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



4.2 Case Study – Ffilm Cymru Wales (UK)

Ffilm Cymru Wales (previously Film Agency Wales) was established in 2006 as the national body for film in Wales and has a mission to grow the Welsh film industry and talent pool, increase audiences and the diversity of films for audiences, utilise film as a tool for community regeneration and develop greater commercial and cross-platform opportunities from film projects.

Its work focuses on supporting four main areas:

Make: Providing film funding, training, mentoring, talent development and international collaboration to get films made by Welsh writers, directors, producers and other film professionals, and to build their companies;

Show: Supporting cinemas, festivals, community and innovative pop up film exhibition to improve access to a diverse range of film;

Learn: Providing opportunities for young people and those across generations to learn about and through film, including support for film clubs, learning resources, practical workshops and wider transferable digital, IT and communication skills and entrepreneurship;

See: Develop access to film and cultural provision for all, with a particular emphasis on those in geographically remote and deprived areas. Developing viewing and business models that learn from data and collaboration with other art forms and creative industries.

“Sustainability in all its forms is a vital responsibility for all companies - from improved practices for the environment, to ethical procurement, to processes that save money and benefit others. This report provides real insights into good working practices that any filmmaking company can benefit from and put into practice.” Pauline Burt, Chief Executive, Ffilm Cymru Wales

Rainy Day Films

Rainy Day Films, is an independent film production company founded in 2006, is dedicated to making motion pictures that tell the kinds of stories that we ourselves would like to see on screen. Stories that move us, that transport us to places beyond our experience that challenge us to think about the world we live in. By telling our stories with passion and conviction, Rainy Day believes we will connect with our audiences. In this way, while doing what we love, we will also keep moving steadily onward and upward.

Ffilm Cymru Wales & Rainy Day Films case study - Another Me

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|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>INTRODUCTION TO CASE STUDY</p> | <p>Rainy Days film “Another Me’ premiered at The Rome Film Festival in November 2013. In development for 3 years and shooting for 6 weeks in Wales and Spain. Pre production and final prep took place at Rainy Days production office in London, and locally in Cardiff and Spain. So travel and accommodation inevitably played a large part in the carbon footprint due to the international nature of the project. Filming took place in Wales and Spain with a key crew of 56 and an average daily cast and crew of 74 per day in both countries. ‘Another Me’ is a psychological thriller with studio and location elements in both Spain and Wales and shot with young adults and children.</p> |
| <p>SCOPING THE PROJECT</p> | <p>Special thanks goes to Pauline Burt and her team at Ffilm Cymru Wales for supporting this case study and to Rebekah Gilbertson & Nicole Carmen-Davis, the Producer’s at Rainy Day Films & Emma Bosch from Rainy Day Films for collating all the data that was analysed over a period of 4 weeks. Reducing travel was not an option for the production due to it being an international co-production. In terms of Sustainable development the boundaries of film making should not be compromised in choosing locations to fit a better carbon reduction but by choosing train travel where possible was incorporated in the decision making process by the producers at Rainy Day Films.</p> |
| <p>SOCIAL</p> | <p>In terms of local employment, the producers gave each applicant equal opportunities with respect to race, religion or gender. 70 - 80% of the crew engaged in the production were locally based, in either Wales or Spain.</p> <p>Most background cast in Wales were sourced through the Barry Comprehensive school which was used as one of the main locations.</p> <ul style="list-style-type: none"> • £2,000 was donated to the school. On set training and experience was provided at Barry Comprehensive School. It was integrated into curriculum & schedule. • Director’s daughter entered the education system along with the pupils of Barry Comprehensive during the summer term. • Crew cleaned environment i.e. playground/playing field. • The Production supplemented drama dept. at the school. • Installed fittings & Fixtures to environments used for filming (legacy). <p>It is clear that the impact the film production had on the local environment and especially Barry Comprehensive School was very positive both from an environmental point of view and legacy from the production’s inward investment.</p> |
| <p>ENVIRONMENTAL</p> | <p>From the meetings held at Rainy Day Films both Producers want to look at environmental best practice and matters of sustainability more closely for their next projects.</p> <p>The water supplied on the film for the cast and crew came in portable bottles to minimise disposable plastic containers and waste. There was no composting programme or overall recycling programme but the key crew from catering were resolute that waste was kept to a minimum due to lack of space on location.</p> <p>Diesel generators were used on location. As waste was not separated in Wales a large proportion would have been landfilled. 75% of the crew in Wales and Spain car shared and when long distance travel was required a proportion travelled by train and air. A silent generator was used and noise kept to a minimum in residential areas. There were no hybrid or low emission cars used on the production. Small portable heaters were purchased locally. 3 tonnes of leaves were purchased for specific use on the film. Costumes are being stored and film production assets being donated locally in Barcelona.</p> |
| <p>ECONOMIC</p> | <p>Ffilm Cymru Wales is committed to supporting the growth of Welsh talent and companies and provide a range of funding across the sector from development and production to company investment and support for education and exhibitors (cinemas, festivals and pop-up provision). They aim to get a balance across their slate of projects that shoot locally, providing job and spend benefits, and international co-productions, stimulating wider international collaboration.</p> |
| <p>CONCLUSIONS</p> | <p>Another Me’ was a fascinating case study for the team at Greenshoot to analyse, The co-production finance and how the producers coped with the challenges of a short production schedule internationally and with young adults and children has to be applauded. The single factor that was highlighted for us was the decision the producers took to actively support a school which hugely benefitted from not only having a film production team on site but support financially by way of donations. Also appreciated was the work the crew donated in time and manpower in tidying up their environment all around the school. The production had a big impact locally in Wales, leaving a healthy legacy and the producers should be congratulated. The producers at Rainy Days Films want to adopt a sustainability policy publicly for their website and are looking at how they can embed sustainability and environmental best practice onto their next film production in 2014.</p> |



Sustainability | Tracking | Asset | Redistribution | Tools: Film Agency Wales, Another Me

PRODUCTION SUMMARY

| | |
|--------------------------------|------------------------|
| Case study commissioned by | Film Agency Wales |
| Country | Wales, Spain |
| Production | Another Me |
| Genre | Psychological Thriller |
| Production company | Rainy Day Films |
| Greenshoot commencement date | 10th November 2013 |
| Cast & crew average daily nos. | 74 |
| Production filming period | 32 days |

EMISSIONS BY STAGE

| Stage | Tonnes CO ₂ e | Percentage % |
|-------------------------|--------------------------|--------------|
| Development | 0.00 | 0.00% |
| Pre-production | 35.50 | |
| Production | 261.67 | |
| Post-production | 0.00 | 0.00% |
| Premiere & Distribution | 0.00 | 0.00% |
| Total | 297.17 | |

EMISSIONS BY ACTIVITY

| | Tonnes CO ₂ e | |
|-------------------------------------------------------------|--------------------------|-------------|
| Energy: Grid | 12.25 | 4.12% |
| Energy: Generators | 68.19 | 22.95% |
| Flights: By origin | 45.39 | 15.27% |
| Flights: Helicopters | 0.00 | 0.00% |
| Business travel | 46.17 | 15.54% |
| Staff commute | 13.59 | 4.57% |
| Freight | 16.76 | 5.64% |
| Hotels & accommodation | 36.60 | 12.32% |
| Office procurement | 2.30 | 0.77% |
| Materials | 55.92 | 18.82% |
| Waste & recycling programmes <small>Not in scope</small> | 0.00 | 0.00% |
| Composting programmes <small>Not in scope</small> | 0.00 | 0.00% |
| Total | 297.17 | 100% |



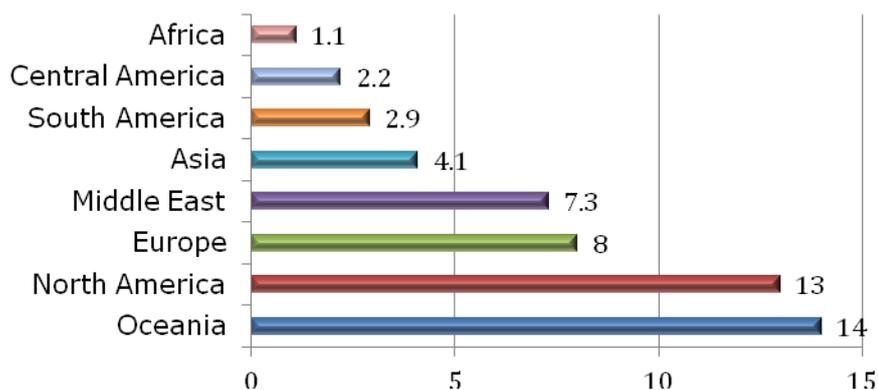
Sustainability | Tracking | Asset | Redistribution | Tools:
 Film Agency Wales, Another Me

| CONSTRUCTION & STUDIO BUILD IN DAYS | NO OF SHOOTING DAYS |
|-------------------------------------|-------------------------|
| 12 days | 32 days (Over 6 weeks) |

| NOT IN SCOPE | REASONS |
|----------------------|-------------------------------------------------------------------------------|
| Recycling programmes | Unable to connect with waste company and not tracked during production period |
| Food Composting | No formal composting programme was undertaken during the filming period |
| Asset tracking | Repurposing assets will reduce a productions footprint |

| KEY METRICS | |
|---------------------------|--------------------------|
| | Tonnes CO ₂ e |
| Total emissions | 297.17 |
| Emissions per no. of crew | 4.01 |

Territorial Emission per Capita (tCO₂/person)



Further Suggestions & recommendations - Ffilm Cymru Wales & Rainy Day Films

- Sustainability policy for **Ffilm Cymru Wales** website and stakeholders
- Green Crew memo signed by producers and distributed at the beginning of production
- Budget line allocated to funding programme for sustainability
- A green runner whose main job is to support a crew management plan as supported by the producers
- Training programme for the local industry
- A solid tracking system so commission and producers can understand progress being made
- Allocate time for ethical supplies and procurement strategy - savings can be made with green product placement and ethical procurement strategies for film productions
- Time allocated at the beginning of production process to sustainability, this can also reduce costs on fuel, energy and waste & recycling programmes with key management and crew

Project contributions

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|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <p>Ffilm Cymru Wales Pauline Burt, CEO Adam partridge, Production & Special Projects Manager</p> | <p>Rainy Day Films Rebekah Gilbertson, Producer Nicole Carman-Davies, Producer Emma Bosch, Project Coordinator</p> |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|



4.3 Case Study – Film i Skåne & Oresund Film Commission, Southern Sweden

The Oresund Film Commission, Southern Sweden was established in fall 2003 and is part of the regional film fund Film i Skåne. Embracing the area of Southern Sweden and Greater Copenhagen, the OFC combines the best resources of the two Scandinavian countries to ensure you the best possible experience on location in the Oresund Region. Whether you're shooting a big-budget feature film or a small-scale documentary, the Oresund Film Commission, is there to make your production in the Oresund Region a smooth and rewarding one. We're there to help, at no charge to you.

Film i Skåne is a regional centre for film and video with the task of promoting all aspects of films. Commissioned and financed by Region Skåne and the Swedish Film Institute, Film i Skåne has been in operation since 1995. Since October 2009, Film i Skåne AB is part of Business Region Skåne .

The regional work of Film i Skåne is run in three main fields – Film Education, Screening and Production. We take an overall view, which means that we see a progression where film education – see, talk about and make films – results in the creation of an interested and demanding audience.

Why did you want to contribute to the Sustainability in Vision report?

“To be a part of creating a more environment friendly attitude within the Film and TV community will increase the awareness of numerous individuals and at the same time give production companies the possibility to show social responsibility.”

Mikael Svensson, Oresund Film Commission, Southern Sweden

Filmlance - The Bridge 2

Filmlance is one of Sweden's largest independent production companies and since its establishment in 1988 has produced high-end television and feature films. The filmography includes more than 70 titles of major motion pictures, animated children's films, TV films, TV series and short films. Many of Filmlance's productions have received awards and attracted a great deal of attention at film festivals around the world. The production volume is two to three feature films and two to three TV drama projects per year.

Film i Skåne & Oresund Film Commission, Southern Sweden Case study – The Bridge 2

| | |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INTRODUCTION TO THE CASE STUDY | The extraordinary international success of the first series of The Bridge meant another was inevitable (along with some regional interpretations around the world.) It was the first jointly financed and produced Danish/Swedish co-production. The shoot took place over 26 weeks with a total number of shooting days for both 1st and 2nd units of 200 days. Principal filming locations were Malmo (Sweden) and Copenhagen (Denmark). The production was based in Malmo with studio shooting at Ystad Studios with its 3,500 sq meters of production studio and offices, where the main set builds were all done. |
| SCOPING THE PROJECT | The producers, cast and crew all supported a more sustainable way of filming and would like to understand methodologies for the next film production and the simple and practical tools required to have a more sustainable and environmentally friendly shoot - one that can be communicated to all the cast and crew before filming begins. |
| SOCIAL | As a Danish/Swedish co-production they employed from both countries. The crew came from either Skåne or Copenhagen, which were the main filming locations. The company chose locations to fulfil a financing requirement - but would have filmed there anyway because they were the best locations. Environments and communities were respected at all time and this was communicated on the call-sheets along with all the health and safety requirements. |
| ENVIRONMENTAL | Water on set was brought in bottles by runners and when finished the bottles returned and a small deposit claimed. This works well across Sweden. The waste produced was recycled back at the recycling depots but not separated on location. So recycling was not possible on every location even though the intention was there. There was one exceptional action scene which meant 100 litres of diesel had to be blown up. The transportation of the cast was done by runners and taxis which meant there was no need to have chauffeur cars hanging around all day. There was a large freight movement between Malmo and Stockholm and around 500 business flights between them as well. Anything from the costume department not put into storage for the next series was given to charity. Construction waste was taken by the contractor Carl F, an 120 year old family firm who have a good recycling rates but have to have a certain amount of separation. The lunch food waste was separated but all other food was put in black bags along with all the other waste and no programme for separation was really followed. Lunch was delivered by the catering company direct from their kitchens with breakfast brought by runners. |
| ECONOMIC | “The Oresund Region is a world leader in terms of the delicate balance between artistic immersion and efficient film economy. That’s probably the secret behind the movie-industry miracle of the last ten years.” Bille August (Oscar-winning director) Film i Skåne has been part of local business initiative Business Region Skåne since 2009. It has an annual budget of around 14 million SEK (€1.6 million), to which both regional and national sources contribute. The turnover of Film i Skåne itself is around 31milj SEK (€3.5m). Activities consist of education, screening and production support, with funds available for shorts, documentaries and features. The aim is both cultural and economic, in the latter case to attract projects to the region, with the view that the “development of the audience, filmmakers and the media industry is a tool for developing the film environment in Skåne”. Film i Skåne acts as a co-producer on projects for which it puts up funds and provides a base for the Oresund Film Commission, Southern Sweden. |
| CONCLUSIONS | The Bridge 2 was a fascinating case study and the highlights were not only the script, cast and production values but also the landscapes and double-decker bridge, beautifully shot in the opening credits. It has placed this region on the world radar in terms of its creative excellence and that is now recognised internationally. A great example of Sustainable Development for the region. It is clear that some sustainable practices were in place but there is a desire and need for a more systematic approach and commitment for the next project at Filmlance and the Film i Skåne_& The Oresund Film Commission, Southern Sweden. It would be mutually advantageous for there to be a joined up approach in Sweden across all the regions that benefit not just one area or region but the audio - visual sector in the country. |

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| <p>RECOMMENDATIONS</p> | <p>The overall assessment focused on the complexity of the project, schedule and scale of the production. Understanding what was actually in place and what could be recommended as simple strategies for a next series. The Bridge is now a global success and its format and characters are being franchised and shown across the world. It would be great for Film i Skåne, The Oresund Film Commission, Southern Sweden - and Filmlance to set the benchmark high for The Bridge 3 with a full sustainability strategy and plan. This may also get copied globally - a win/win situation!</p> <p>Recommendations:</p> <ol style="list-style-type: none"> 1.To look at writing a Sustainability Policy for the Film i Skåne and The Oresund Film Commission, Southern Sweden's website which would publicly declare their commitment to managing their business in a sustainable way. This would communicate a clear message to their staff, stakeholders, regional crews and supply chains that they believe sustainable practices should be at the heart of all areas of their operations and business decisions. 2.An education programme would benefit the region. (See item on training at the end of this report.) 3.In terms of the production process there is obviously desire from producers, production company and crew to become more environmental sustainable. It would benefit the production company Filmlance to start planning a sustainability strategy early in the finance stages and have a sustainability budget allocated at budget stage to make sure in early preproduction that key head of departments are signed up to how the producers wish to run the production in a more sustainable way. 4.Look at Green procurement, green product placement and companies offering greener travel early on in finance stages to secure marketing and funding opportunities for the next series and productions coming up. 5.Write a sustainability policy and a 'Green' crew memo at the start of each production, highlighting areas that they expect support with from their cast and crew and employees on the production and to have a public statement about Sustainability on their website. 6.Hybrid cars, low carbon portable silent generators and a full transparent Environmental Management System would work well regionally and could provide a cost saving to the producer and film company especially if a green procurement programme was engaged with early on and savings on fuel spend for unit base generator systems. |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



Sustainability | Tracking | Asset | Redistribution | Tools:
Oresund Film Commission - Film I Skane, The Bridge 2

PRODUCTION SUMMARY

| | |
|--------------------------------|----------------------------------------|
| Case study commissioned by | Oresund Film Commission - Film I Skane |
| Country | NA |
| Production | The Bridge 2 |
| Genre | Ongoing Drama Series |
| Production company | Film Lance |
| Greenshoot commencement date | 1st November 2013 |
| Cast & crew average daily nos. | 98 |
| Production filming period | 200 days |

EMISSIONS BY STAGE

| Stage | Tonnes CO ₂ e | Percentage % |
|-------------------------|--------------------------|--------------|
| Development | 0.00 | 0.00% |
| Pre-production | 120.16 | 16.04% |
| Production | 629.07 | 83.96 |
| Post-production | 0.00 | 0.00% |
| Premiere & Distribution | 0.00 | 0.00% |
| Total | 749.23 | |

EMISSIONS BY ACTIVITY

| | Tonnes CO ₂ e | Percentage % |
|-------------------------------------------------------------|--------------------------|--------------|
| Energy: Grid | 81.55 | 10.88% |
| Energy: Generators | 112.14 | 14.97% |
| Flights: By origin | 63.27 | 8.44% |
| Flights: Helicopters | 3.86 | 0.52% |
| Business travel | 162.92 | 21.74% |
| Staff commute | 62.40 | 8.33% |
| Freight | 44.17 | 5.90% |
| Hotels & accomodation | 84.18 | 11.24% |
| Office procurement | 8.84 | 1.18% |
| Materials | 125.90 | 16.80% |
| Waste & recycling programmes <small>Not in scope</small> | 0.00 | 0.00% |
| Composting programmes <small>Not in scope</small> | 0.00 | 0.00% |
| Total | 749.23 | 100% |



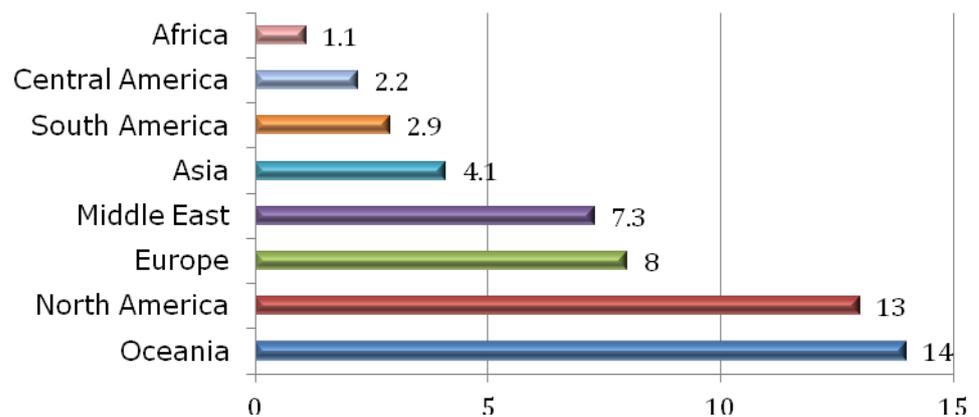
Sustainability | Tracking | Asset | Redistribution | Tools:
Oresund Film Commission - Film I Skane, The Bridge 2

| | |
|------------------------------------------------|----------------------------|
| CONSTRUCTION & STUDIO BUILD IN DAYS | NO OF SHOOTING DAYS |
| 40 (approximately) | 140 days |

| NOT IN SCOPE | REASONS |
|----------------------|-------------------------------------------------------------------------------|
| Recycling programmes | Unable to connect with waste company and not tracked during production period |
| Food Composting | No formal composting programme was undertaken during the filming period |
| Asset tracking | Repurposing assets will reduce a productions footprint |

| KEY METRICS | |
|---------------------------|--------------------------|
| | Tonnes CO ₂ e |
| Total emissions | 749.23 |
| Emissions per no. of crew | 7.65 |

Territorial Emission per Capita (tCO₂/person)



Further Suggestions & recommendations for Film i Skåne, The Oresund Film Commission, Southern Sweden & Filmlance

- Sustainability policy for Film i Skåne_& The Oresund Film Commission, Southern Sweden websites
- Budget line allocated to funding programme for sustainability
- A green runner whose main job is to support a crew management plan as supported by the producers
- Training programme for the local industry
- Green Crew memo released at the beginning of production
- Green Procurement campaign, product placement
- Sustainability tracking and assessments would benefit next productions
- Budget line allocated to funding programme for sustainability for region
- Energy and fuel reduction campaigns engage with cast and agents early to gather support
- Time allocated at the beginning of production process to sustainability, this would also reduce costs on fuel, energy and waste programmes
- Have a transparent recycling system, not using black bags which always hides contaminated waste - would be of benefit to crew morale and environmental impact
- Green database for ethical supplies, senior management to contact and secure deals - ethical procurement can save on the bottom line

Project Contributions

| | |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <p>Film i Skåne & Oresund Film Commission, Southern Sweden</p> <p>Ralf Ivarsson Mikael Svensson</p> | <p>Filmlance</p> <p>Anders Landstrom Louise Larsson Thomas Nilsson</p> |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|



4.4 Case Study - Screen South (UK)

4.4.1 Screen South and Maidstone Studios

Screen South is a Creative Development agency delivering and supporting projects across screen-based media and the wider cultural and creative industries. A resource that helps people get their ideas off the ground and supports delivery locally, nationally and internationally. Their aim is to contribute to stimulating a competitive, successful and vibrant, creative industry and culture.. Screen South is passionate about developing and contributing to a dynamic and sustainable environment in which film and screen-based media culture can flourish. Screen South supports production, development and training working in partnership with the regional and national film industry.

The Maidstone Studios is located an hour away from London, near the channel ports of Dover and Folkestone. It is the UK's largest independent studio complex and has come a very long way since the current owners rescued it from demolition in 2002. The growth has been organic, a carefully planned progression to the current level of five TV studios, ranging in size from 24 sq. m to 1,114 sq. m. This means that no matter what the scale of a TV production – dramas, live format or series - the studio can accommodate it. The Studios is an on-going business concern that is alive to the need to take a sustainable approach to development.

Sustainability and sustainable development has always been a big part of the planning during the past decade. The task of expanding and improving the studio complex is an on-going project. Growth has been carefully managed to be sustainable in terms of both the environmental aspects and the business model. They have kept control of the budget and the emissions. Maidstone has one of the best sound studios in the country, on Stage 5. In fact the most popular BBC live music programme - 'Later.with Jools Holland' - has recently moved its production to Maidstone Studios, which is a great validation of the sound quality.

The studio complex is situated outside the town and so is surrounded by plenty of green space giving it a calm, semi rural atmosphere, which is a contrast to most UK studios. Education and training is a big part of the studio set up. Many young film-makers visit to learn from professional writers, directors and film crew about the mechanics of creating and shooting a film. Screen South and Maidstone partnered on the European North Sea Screen's local Talent Development Programme. The Studios are a joint partner with Screen South for the national BFI Youth Film Academy in Kent. This is also one location for the University of the Creative Arts, where a huge range of courses ranging from animation to film to digital and media are taught. There are obvious economic benefits for the Studios in having the university based on site and the value of having an education centre there is also significant.

Sustainability influences other areas. With the on-site catering, a large proportion of the food served in the studio canteen is grown locally which reduces the food miles. As part of the studio development programme a data centre was built. It has won a Green Gold Award for its energy efficiency. Not only is information stored here for clients on site and in the local area but companies from London are now using it as a hub for vital data that needs to be stored securely.

Also waste management has been looked at. The Studio's waste contractor has a high recycling rate and a separate container for paper has been provided. This will enable closed loop recycling - where paper is turned back into paper, cardboard into cardboard. With 30 companies as tenants on site, the volume of waste is high so finding ways to make money from that waste has to be a bonus.

The Maidstone Studios is in a unique position in terms of its offering to the Film & TV broadcast industry. Geographically it can actually be easier to get to from London than going to other studios located on the edge of the capital. As the media world gradually decentralises from London - the BBC

for example moved huge numbers of staff and facilities to Manchester - having a base outside the capital can now be regarded as a real positive.

Over the last 10 years Geoff Miles and Rowland Kinch, the co-owners of the studio, have built a company that is a model to sustainability in terms of both commerce and the environment.

“Sustainability is cost effective. As an independent, we need to work and plan in a value led way.”
Geoff Miles - The Maidstone Studios

Summary of key sustainability and carbon reduction areas of analysis;

1. Water - consumption by crews is generally small, tap water supplied, no plastic bottles required
2. Waste - recognised contractor used, good recycling rate
3. Energy - LED and movement sensitive lighting being retrospectively fitted
4. Education - training programmes for young students of film and home to a branch of the University of the Creative Arts.
5. Transport - usage of a hybrid taxi company is increasing
6. Lighting is movement sensitive LED being retro fitted and installed in any new build
7. Employment - providing work to people from the local area
8. Upgrading the Studio Ventilation systems to be far more energy efficient
9. Retro fitting the studios to be more sustainable across all areas

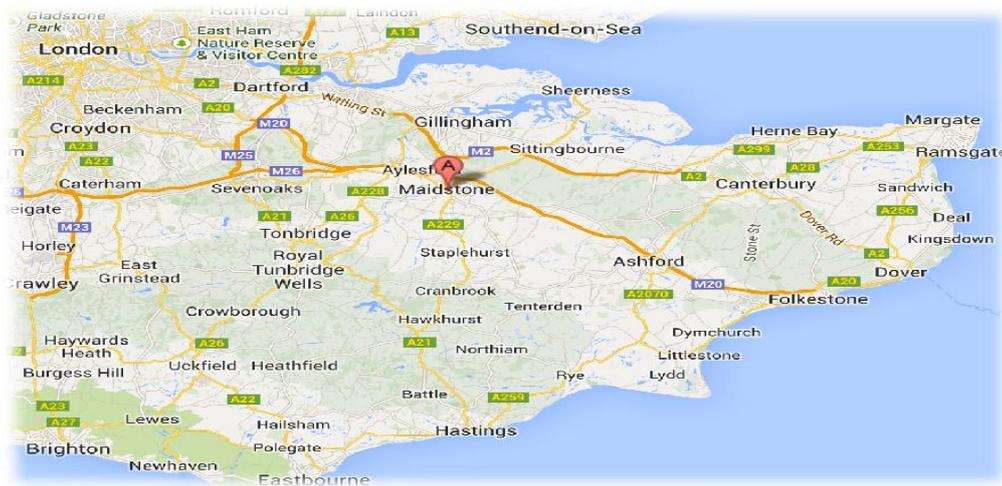
Potential sustainability initiatives.

1. The studio and the 30 companies who are tenants on site produce cardboard compactor on site - high volumes of cardboard waste. This waste stream has a value and can be sold on.
2. Free energy analysis from a green energy provider to compare prices
3. Set repurposing - instead of paying for the disposal of unwanted sets find other TV productions or studios that want it and will take it away for free (a good place to start is www.set-exchange.co.uk).
4. Encourage people who work at the studio site to leave their car at home and cycle by offering them a free breakfast.
5. A sustainability policy for The Maidstone Studios, which publicly declares their commitment to managing the business in a sustainable way. It sends a clear message to their staff, stakeholders and supply chain that they believe sustainable practices should be at the heart of all areas of their operations and business decisions.

Aerial view of The Maidstone Studios site



Map of The Maidstone Studios location



Further suggestions & recommendations for Screen South & The Maidstone Studios

- Sustainability policy for The Maidstone Studios & Screen South - to be placed onto websites
- Environmental policy onto The Studios website
- Green Procurement campaign
- Green studio coordinator allocated for 2014 onwards at the studio
- Energy and fuel reduction campaigns
- Campaigns on fuel, energy and waste programmes reductions
- Have a transparent recycling system, not using black bags which always hides contaminated waste - would be of benefit to crew morale and environmental impact
- Green database for ethical supplies - senior management to contact and secure deals, ethical procurement can save on the bottom line

Project Contributions

| | |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <p>Screen South Jo Nolan - Managing Director, Screen South & The Screen South team</p> | <p>The Maidstone Studios Geoff Miles & Rowland Kinch and the team at The Maidstone Studios</p> |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|

4.4.2 Screen South & Greenshoot Production Runner Training Course at Pinewood Studios in partnership with Creative Skillset

The first training course of its kind prepared by Greenshoot in partnership with Screen South was held in November 2013.

With support from Creative Skillset and the BFI, 12 delegates spent 3 days at Pinewood studio learning about all matters to do with making a production sustainable. This learning was coupled with a comprehensive introduction to how a film set works and what is expected of a runner.

The training included sessions on;

- * environmental compliance
- * basic production training
- * setting up and managing an on-set environmental management system
- * the role of a runner on a film production and the changing landscapes
- * environmental case study of a film – Sherlock Holmes: A Game of Shadows
- * case study - Portrait of a Star - 10 minute short film - made completely sustainably
- * understanding environmental EU standards & the British Standard 8909 - A Sustainable management framework for film and how it will become an international standard
- * composting & recycling & ethical procurement
- * green product placement and new business developments
- * repurposing unwanted film assets to save on the bottom line and carbon footprints

The delegates took an exam on the final afternoon. This tested their knowledge and understanding that they had been taught about of British Standard 8909, a Sustainability Management System for Film. Those that passed -100% - were awarded a certificate that gives them increased employment opportunities as the demand for a knowledge of sustainability management and legislation increases within the filming industry.

Another 3 day course was held in February 2014 for a further 12 young production people, with further courses planned for later in the year. It means the next generation of film makers will have a broad understanding of why and how productions should be sustainable, right at the start of their careers.





4.5 Case Study - Flanders Audiovisual Fund

Text: Siebe Dumon, Flanders Audiovisual Fund

How to evolve towards a more sustainable film production industry in Flanders

e-Mission is Flanders Audiovisual Fund's research and coaching project on the ecological sustainability of the local film production industry. The overall aim was to develop a hands-on and efficient program to green the Flemish film sector. Hence, some very concrete questions were at the core of the development process: What actions are most polluting? Where lie the biggest opportunities? What can we do to evolve towards a more sustainable film production? And on the long term: what are the results of our efforts to produce in a more sustainable way?

These questions led to developing three tracks:

- (1) collecting data on the carbon emission of Flanders' film production;
- (2) defining concrete actions to help film crews to produce in a more sustainable way;
- (3) developing coaching tools in order to sensitize and educate Flanders' audiovisual professionals.

In March 2013, a 12 months pilot project was kicked off. The total costs of the project for the first year were € 70.000, 50% of the amount coming from VAF's research budget, and 50% from VAF's training budget. The Belgian eco consultancy company Zero Emission Solutions (ZES) was chosen as partner in the project. Alex Polfliet is the CEO of ZES, Kim Vandenheuvell was the project leader on the e-Mission project.

By September 2013 six films had been analysed within the e-Mission project: four recently completed films and two films in full production. From October 2013 to April 2014, fourteen more fiction films and series got involved in the e-Mission project. In the upcoming months, they will all be coached towards more sustainable production methods, and analysed using the carbon calculator designed to the specifics of Flanders region.

VAF supports approximately 12 feature fiction films per year – estimated to 1.047 tons of CO₂ per year (emission of 52,44 tons of CO₂ to 159,44 tons of CO₂ per film). This is the same level as 145 households per year or 105 ha forest a year to compensate. In comparison the French audiovisual industry is estimated at 1 million tons of CO₂ per year according to Ecoprod data. Hence, comparing films and calculations on a transeuropean level is difficult today. The reality of film production differs strongly from country to country, the scopes of the national calculators are not aligned, etc. These challenges will have to be faced and solved European wide.

How it all started

While temperature was rising and ice was melting, things started to move in the worldwide film industry on the topic of sustainable film production. Different companies, conglomerates and projects saw light: Flanders Audiovisual Fund put sustainability on its agenda.

The first action towards introducing a greener film shooting approach to the Flemish film sector was announced back in 2011 with an Eco-summit during Film Festival Ghent. An e-Mission handbook was published, proposing a set of tools and advices on how to reduce the footprint of a film production.

In 2012, Flemish director Nic Balthazar & his producer Peter Bouckaert (Eyeworks) produced the first carbon neutral Flemish film: "Time of my Life". The target was for the production to try and reduce the footprint, by following the advice and tools in the e-Mission handbook and of course by relying on a lot of common sense. To reduce the footprint, the director and producer decided to:

- Reduce transportation by choosing shooting locations close to where most of the crew lived, instead of faraway locations, by carpooling, by staying over at a hotel near to the shooting location instead of driving home every morning and evening, by using bikes instead of cars, etc.
- During shooting stone cups were provided for everyone instead of plastic or cardboard ones. Waste was accurately separated and handled.
- Also, to compensate the realized carbon emission, solar panels were installed on the roof of the Eyeworks offices, providing clean energy for a lot of years even to come.

After the production the calculation of the carbon footprint was prepared by Serge De Gheldere from Futureproofed (www.Futureproofed.be). In addition VAF and Futureproofed prepared a case study as the basis for taking matters further. It was calculated that the total reduction was 10,3% compared to when no measures would have been taken.

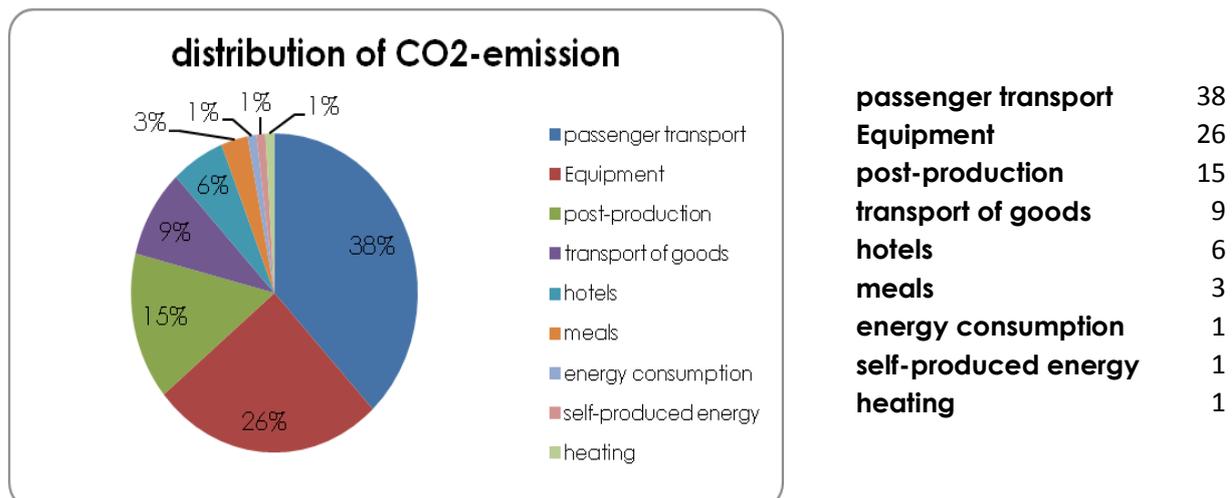
e-Mission, The First Six Months

During the first six months of the e-Mission project [March-August 2013] the following research actions were carried out:

The carbon calculator was developed, and the calculation was carried out on four completed films with budgets between € 1 mio and € 3,5 mio and which were produced between 2011-2012. The retrospective analysis included the following films:

- o Time of My Life (Eyeworks / Nic Balthazar)
- o Allez Eddy (Cine Cri de Coeur / Gert Embrechts)
- o The Broken Circle Breakdown (Menuet / Felix Van Groeningen)
- o Brasserie Romantiek (A Private View / Joel Vanhoebrouck)

In addition, set- and desk research was done on two feature fiction films that were shot summer 2013. The analysis started in preproduction phase. These two projects have also been coached (and still are) towards more sustainable production. The two films are Cub (Potemkino / Jonas Govaerts) and Labyrinthus (Savage Film / Douglas Boswell).



Methodology and tools

The research on these six films and the coaching sessions lead to a methodology and a carbon calculator specifically made for the Flemish film industry. Different documents and working tools for filmmakers were developed.

- (1) A brochure to raise awareness on the topic among the Flemish film sector. It provides

answers to questions such as: why would you invest in sustainable production? What are the basic rules of a sustainable film production? Etc. It also provides seven top measures to take, such as appointing a sustainability responsible, or avoiding unnecessary transport by strategic choices of locations.

- (2) A series of checklists to provide a clear overview of efficient and realistic actions per department. There are checklists for the line production department, the location management department (waste & catering), the set department, the costume department.
- (3) Two calculation tools were developed. The first on 'hybrid cars' helps producers to calculate the financial and ecological costs or benefits when hiring hybrid cars instead of traditional ones. The second on 'hotels' helps producers to calculate the financial and ecological costs and benefits when renting hotel rooms for the crew instead of having them driving home and back to the set.
- (4) Flash cards with 'best practices' were developed:
 - Best Practice strategic choice of locations
 - Best Practice communication in production booklet
 - Best Practice biological and/or vegetarian meals
 - Best Practice led lamps in make-up mirror
 - Best Practice bicycles
 - Best Practice carpooling
 - Best Practice hybrid cars
- (5) Partners / providers of green solutions were found for hybrid car rental at competitive prices, for rental of 30% biodiesel generators (instead of normally 10%) and for waste handling on set.
- (6) A carbon calculator for Flanders' film production industry was developed by Zero Emission Solutions, in close consultation with VAF and with the producers of the six films that were involved in the research process (cf. supra). The calculator is designed to calculate the carbon emission of each feature fiction film that gets VAF-production support. During production, it helps to estimate the impact of undertaken actions. When the film is finished, it's a tool to calculate and evaluate the carbon emission of this completed film.

It was chosen to develop an excel tool, as it's easier to work with for both the producers and VAF or the involved consultant. The scope is limited to pre-production, production and post-production. Carbon costs of distribution and exhibition are excluded from the calculator, as this is out of the producers' hands.

The calculator consists of different tab pages: (1) general information; (2) transport; (3) production of electricity; (4) use of electricity; (5) heating; (6) waste; (7) catering; (8) hotels; (9) other.

For the design of Flanders' first carbon calculator it was decided to include waste as category, and e.g. set materials within the tab page 'others, but not to give these categories specific emphasis or priority.

The two last tab pages of the excel calculator give an overview of the carbon emission of the film, and a comparison with all films that were previously calculated. Every time a calculation for a film has been done, it adds to the covering calculations.

- (7) Till Autumn 2014, Flanders Audiovisual Fund and Zero Emission Solutions provide personal coaching for filmmakers.

All information and tools, including the carbon calculator, can be downloaded via Flanders Audiovisual Funds' website: <http://www.vaf.be/ecologie/e-mission-project/> All tools are in Dutch, but the information is available in English. Please contact Siebe Dumon for more information (sdumon@vaf.be).



What's next?

Next step is to engage the broader sector. Since September 2013 each feature film or series that gets VAF production support is engaged in the e-Mission project, by:

- having to participate to an information session / workshop of ½ day;
- being asked to make an effort to produce in a more sustainable way
- being asked to collect relevant data and to fill in the carbon calculator
- being coached by ZES during the whole process.

All along, the different tools, checklists and the carbon calculator can and will be refined when needed.

For the fourteen films that received VAF production support in September 2013, the coaching and analysis have already started. Information sessions / workshops took place in Octobre 2013 and February 2014. All line producers of the involved projects attended.

A concluding seminar will be organized for film professionals and students in Autumn 2014. Flanders' e-Mission project will be evaluated and a decision on how to proceed further will be taken in June 2014. It is the aim to remain very hands-on, practical and realistic.

Siebe Dumon has very kindly arranged for English versions of an extensive set of their resources to

be available to readers of this case study for further information and as contribution to others process's. They are available by email from VAF or Green-Regio. They include toolkits and best practice papers

- Sustainable Film Brochure
- Check list Costume
- Check list Location Catering Management
- Check list Location Waste Management
- Check list Production team
- Check List Props
- Best Practice Bicycles
- Best Practice Carpooling
- Best Practice Productions Communications Booklet
- Best Practice Energy efficient lighting
- Best Practice Hybrid Cars
- Best Practice Meals Organic
- Best Practice Meals Vegetarian
- Best Practice Strategic use of locations

For all additional information, please contact Siebe Dumon, Head of Training and Film Education at Flanders Audiovisual Fund, +32 2 226 06 55, sdumon@vaf.be



4.6 Case Study - Wallimage-Bruxellimage

Une chanson pour Ma Mère : an ecological film

Text: Sophie Cornet, Philippe Pierquin and Noël Magis

1. Introduction

Une Chanson pour Ma Mère is the first Belgian film to be distributed in France and Belgium by Disney, and only someone voluntarily avoiding any and all media could have missed the fact that::

1. It marks the first time Dave, a famous and popular French singer born in Amsterdam, appears on the big screen, and he is great
2. It is the first film made by a promising Belgian director, Joël Franka.
3. It is a well-crafted and moving family comedy



But *Une Chanson pour Ma Mère* is also an eco-compatible film ! Fitting the form to the substance, the shooting was subject to a number of rules, which perhaps herald a more global shift in attitudes. This way of viewing things is already popular abroad. It is high time Belgium embraced it.

Project outline

This particular initiative exists thanks to Sophie Cornet, an independent eco-consultant. Together with the Federation Wallonia-Brussels, she edited (in French) a small guide on eco-cinema, distributed by the Centre du Cinéma in 2011. You can download it [here](#), in pdf form. This first approach was pedagogical, meant to initiate a declaration of faith.

Sophie, whose work centers on the entertainment and culture industries, also works for La Monnaie. She deals with the environmental management of the institution and the ecological impact of the shows developed there. She was able to test her mission to make shoots more “ecologically responsible” on *Une Chanson pour Ma Mère*. With support from Bonne Pioche, Novak and Alizée, she set to work on her first long-term project. It was a success.

Dates of project commencement: 2011

Regional relevance

Most of the shooting sets were located in Wallonia (Abbey Notre-Dame-d’Orval, Castle du bois d’Arlon, Cultural Centre Libramont-Chevigny...

The local expenses in Wallonia amounted 795.000 €

- 62.600 € in artistic expenses (director’s team, supporting actors,
- 16.000 € in production (team)
- 694.000 € in shooting activities (technical team, locations, sets shooting...
- 14.200 € in post-production (image and sound)

The regional fund Wallimage invested 308.000 € in the movie meaning a ROI of 258 %.

2. Methodological approach

In concrete terms, the approach starts with a study of ways in which to rationalize certain structural aspects, i.e.: reduce the global paper consumption. This thought process ranges from paper weight to print mode and the inevitable recycling process for the documents...

During the shoot, a series of choices related to logistics and catering were made in close cooperation with everyone involved. By banning disposable cups, the shoot saved on 9000 polluting elements. And this is for only a modestly sized production. As a result, they set up a partnership with a company producing ecological flasks. Each crew member received a flask which they could refill at the water fountain. For fizzy drinks, glass – so recyclable – bottles replaced plastic containers or cans.

Regular glasses were also made available. With the plates and cutlery, this was the main concern for the logistics management, as they had to do a lot of washing up. But in the end, everyone set to it without too many objections.



Selective sorting was organized, which is definitely no sinecure as the set was moved several times. In Libramont, they worked together with the city which provided sorting skips. In Overijse, the crew was able to use special bins with posters.



The ecological aspect of the shoot was also reflected in the choice of canteen. L'Étable d'Hôtes, located in Virginal, does not just "settle" for cooking with organic products. This rationalization is at the heart of a global thought process with a constant search for locally produced and distributed, seasonal food. In the end, the crew was very fond of healthy, plentiful and energy-fuelling meals. The decorator crew went looking for reclaimed, restored and reused elements to build certain parts of the set. Beyond the wish to "recycle", the drive to work with healthier and less polluting material led to renew the farm with whitewash paint rather than with a less natural material. According to Paul Rouschop, renowned lead decorator, this innovative approach could lead to substantial economies when time is spent thinking of sustainable purchases and recycling. The "costume" department followed a similar approach: rather than create the monk's robes, they opted to reuse costumes.

The last point set up on the shoot of *Une Chanson pour Ma Mère* was related to polluting emissions due to transport. Through www.ecoscore.be, the production was able to choose the vehicles most adapted to the concept. The selected company even supplied an electric car, used by Michel (Fabrizio Rongione) in the film.

The accommodation for cast and crew was situated as close to the set as possible and car sharing was encouraged with a bonus: the mileage reimbursement was higher for those participating. One only had to think about it.

3. Key Findings

Economic

At this point, it is hard to measure the short-term economic impact of opting for an eco-compatible shoot. As long as it does not cost more, no one should object. However, it is already possible to integrate the sustainable development approach into searching for complimentary financing in order to find new investors in the form of institutions or companies aware of these essential topics.

Stakeholders (who was involved)

- Sophie Cornet (independent eco-consultant)
- Bonne Pioche (production company France)
- Novak Prod (production company Belgium)
- Alizée (Production company Belgium)

4. Conclusions & further suggestions

After the exceptional work by Nic Balthazar on his second feature film, *Tot Altijd*, the approach by Sophie Cornet on the shoot of *Une Chanson pour Ma Mère* is different, but one that could end in a long-term policy, taking in more of the productions started here.

In France and the United Kingdom, several tools have been thought up to create an economic balance for the ecological approach. A capital argument which will leave no producer indifferent.

A few thoughts about the process:

- The sector lacks a framework and suffers from time constraints.
- The process must be considered before the shoot begins, and be based on the work plan of the shoot.
- Start with simple things
- Convince the actors (write it in their contracts)
- There is a need for an eco-consultant to frame the process, taking the time to analyse the requirements and guide the search for solutions and their implementation
- Train the sector (location management, schools)
- The approach on *Une chanson pour Ma Mère* worked by involving the lead crew in the creation of an “eco” work plan. There was no time nor budget to objectify the process by using numbers (use of a carbon calculation tool)
- The process must be structured and the tool offered through a film organization, both in order to give the process credibility, and also to be able to access the necessary tools and budgets.
- The Tax Shelter (Audiovisual tax incentive in Belgium) was approached with an eco-dossier. Some organisations were interested (province of Luxemburg, private companies) but the approach did not lead anywhere. In the future, this question needs to be further looked into
- With the tax shelter authorities and developed more leading up to a shoot (integrated into the financing).



Filmförderung Hamburg Schleswig-Holstein

4.7 Case Study - Filmförderung Hamburg Schleswig-Holstein

The Green Shooting Card initiative

Text: by: Birgit Heidsiek and Christiane Scholz

How did the Green Shooting Card emerge?

In 2011, Hamburg was the European Green Capital and Filmförderung Hamburg Schleswig-Holstein (FFHSH) wanted the film sector to make a contribution and to provide the sector with tools to take the agenda of sustainable film and television production forward. The different approaches taken in Europe gave rise to the idea of initiating the Green Shooting Card. Today FFHSH is working on making green standards a reality and to ensure best practices for the industry.

The Green Shooting Card was introduced at a kick-off event in 2012 and to date 17 films as well as TV series and short films, have received the Green Shooting Card/Pass and hence, been labeled for verified sustainable production methods.

Among the productions that were sustainably filmed in the region are: Michael Bully Herbig's comedy *Buddy*; the TV comedy *Bloß kein Stress* by Lars Jessen; the tv-series *Grossstadtrevier* and *Der Landarzt*; the German-Danish co-production *Companion* by Samanou A. Salstrøm; and several student films produced at the Hamburg Media School (HMS).

What is the Green Shooting Card?

The Green Shooting Card is issued by Film Commission Hamburg Schleswig-Holstein (FCHSH) for individual projects by national and international producers who verifiably shoot their films on location in an environmentally friendly manner. It is a seal of approval for movie and TV productions, certified by the City of Hamburg as European Green Capital 2011, which includes FCHSH recommendations on how to reduce energy consumption and waste on the set.

A registration with Filmförderung Hamburg Schleswig-Holstein emphasizes the respective production's level of reliability, which can facilitate communication with location proprietors. At the same time, the Green Shooting Card simplify cooperation with the City's permit issuers. For the productions themselves, the Green Shooting Card signifies a mark of distinction which documents and communicates their contribution to the protection of the environment.

Who is the Green Shooting Card issued to?

Any production that can verify shooting in a "green" manner can obtain the card. Besides information on the production company, the shooting schedule, a staff list, and the current script alongside a daily call sheet, a list must be submitted of how the producer intends to reduce the use of energy in at least three of the five ensuing points to shoot the current production in an environmentally friendly manner:

1. Production design. The reduction of electrical waste; the recycling of scenery and props; the use of biodegradable and reusable materials such as wood and fabrics.
2. Catering. The use of regional and seasonal produce; the reduction of plastic cups and plastic bottles; the use of own cups and drinking glasses; the general separation of waste.

3. Production office/crew. The use of recycled paper; electronic call sheets; the double-sided printing of paper; the deployment of a “green runner” as environmental officer on the set; the separation of waste and the use of green electricity in the office.

4. Transport/equipment. Carpooling and the use of hybrid vehicles where possible; the use of energy-efficient lighting and fixed power sources on the set.

5. Compiling an eco-balance sheet. e.g. in cooperation with Hamburg-based nserve Environmental Services, who is FCHSH cooperation partner since September 2012.

Free Carbon Footprint Calculator & recycling of props

FFHSH provides a free Carbon Footprint Calculator with their partners, nserve GmbH. This calculator determines the emissions of a film production and contains all the essential sources of emissions, such as electricity and fuel consumption, heating, air and rail travel or hotel accommodations.

The calculator was developed by scientists and climate experts for the German film industry and will be continually updated. Hanseatische Materialverwaltung is a service provider that has undertaken the culturally ambitious project of recycling props. They collect used material from film and theatre productions free of charge and make them available to others. They are a co-operation partner of the Green Shooting Card.



Shooting of charity spot on minimizing carbon footprint, produced by FFHSH.



Film catering with regional food and waste separation

Feedback from the industry and Moving on!

The feedback from the industry has been very positive for the introduction of the Green Shooting Card and the number of producers who are willing to produce sustainably is far greater than we expected.

Despite all the positive experiences with filming green, indeed many producers are still concerned that green production means higher expenses. “You’ll have to invest more time in preparation”, acknowledges Eva Hubert, Executive Director FFHSH. “Using energy-efficient LED lights and hybrid cars also comes at a cost. Film funding institutions, not to mention the entire film industry in Germany, must look for solutions here, just as they are already started to do in some other European regions and countries”. Starting 2014, Filmförderung Hamburg Schleswig-Holstein will offer Best Practice seminars featuring hands-on demonstrations of how to save money through sustainable production methods.

In addition an increased collaboration with Film Schools is planned for 2014. Since May 2013 the film students of Hamburg Media School produce the short films in an environmentally friendly manner. The students hired green runner and tried to increase the green efforts from production to production.

The production of *Buddy* – teamwork as the formula for green success

The production of the German feature film *Buddy* achieved substantial cuts in carbon emissions. Director/Producer Michael Bully Herbig discovered teamwork is the formula for green success. During

pre-production, Herbig and his crew established sustainability goals for travel, material, waste management, supply/purchasing, carbon emissions/energy, and communications.

“We went to each and every department”, reports Herbig. “The fantastic thing about it was that all of them participated.” Art Direction, for example, used biodegradable paint and sourced their material from local suppliers. “I addressed the issue of sustainability nine months before we began principal photography”, the director explains. “What people call green filmmaking already exists in the U.S., France, and England. Here, the concept is practically treated as an afterthought.”

When the director took his project to Hamburg, he was pleasantly surprised to find that the Film Commission Hamburg Schleswig-Holstein (FCHSH) offers a Green Shooting Card as well as a Best Practice Guide from which the *Buddy* production benefited. Herbig hired Nicola Knoch, a sustainability consultant, to create awareness of environmental issues among crew members. Nicola got involved right at the start with *Buddy*'s production planning in order to break old habits and introduce sustainable procedures in the production process. A “Green Hour” was scheduled into the production's regular work week for ongoing discussions.

He called upon the Art Direction and Property departments to use ecologically safe material and to procure sustainable products. About 50 % of the ingredients the catering crew used to prepare over 11,000 meals were regionally sourced. The use of paper/plastic plates was virtually eliminated. “We gave everyone presents at the pre-shoot warm-up instead of at the farewell party”, confirms Herbig. “Every team member got a sustainably produced bag containing a Dopfer water flask and a small thermos. Through this measure alone, we generated 65 % less waste during production as compared to non-green productions.”

CO2OL, a consulting company specializing in climate protection, developed a calculator that was used to determine the carbon footprint left by the *Buddy* production. The result: emissions were reduced to less than 400 t. Most of the carbon emissions (150 t) were generated by over 2,000 overnight stays by the large crew that could not be accommodated at a green-powered organic hotel. Production vehicles accounted for 112 t, while flights and 400,000 km of road travel generated 66 t of CO2.

FFHSH's Best Practice Guide proved to be indispensable during the implementation of the sustainability measures. “In the future, it would be beneficial to link subsidies to sustainability measures and to give productions an incentive to think along these lines and opt for the — initially, at least — more labor-intensive path”, suggests Knoch. “Sustainability involves more work and it's more expensive at first”, adds Michael Bully Herbig. “That's why everyone has to be creative.”



Photo : Green Shooting Card from Filmförderung Hamburg Schleswig-Holstein for BUDDY: from left to right: Helen Peetzen (FFHSH), Jacqueline Jagow von Warner Bros. Entertainment, Michael Bully Herbig (Producer/ Director of BUDDY), Eva Hubert (Director FFHSH). Christiane Scholz -Film Commission HSH



4.8 Case Study - PACA (France)

“Minuscule – Valley of the Lost Ants”: the first entire green shooting in PACA

Text: Solenn Guéguénat / Mathieu Tronquit

Since the end of January the French audience has discovered on screen the adaptation of the successful TV serial “Minuscule”, a successful franchise with two pre-existing TV series on air. **“Minuscule – Valley of the Lost Ants”** is a hybrid feature film mixing real footage and animation, all in 3D and cinemascope. A world premiere!

The film is the first movie to be released that was entirely shot on PACA/Provence-Alps-Riviera regional green standards. **Since 2010 the Regional council of PACA has launched a bunch of measures to help productions and shootings to turn green.** It consists in a **financial and technical support** both aimed at supporting environmental savings and at showing how preserving the environment does not mean increasing your film budget.

Philippe Delarue, the producer of « Minuscule » has decided to organize a **proactive green shooting since the very beginning of the project**; obviously the subject of the film that sensibilizes children to the life of small animals living under our shoes isn't for nothing in this decision. The film, as well as previously the TV program, describes with intelligence the life of insects in the nature and their role in the existence of a lot of species. **The message is therefore the first green action of the project.**

But what can be noticed is the energy the entire team put in developing a green shooting around this project.

First the Ecoprod calculator, **Carbon'Clap** (see below), has been used before the preparation of the shooting to evaluate where environmental outputs could be decreased. The results showed around **380 TeqCO₂** (Carbon equivalent tons) **with the objective of decrease as far as possible.** The live shooting took place in **only two deferent areas: National Park of Mercantour and National Park of the Ecrins**, nearby the French Alps; in these **particularly preserved areas** everything was organized to **limit green house effects** linked to transports. The shooting material was rented nearby, in Cannes and only transported once because it was stocked on the set every night watched by a guard sleeping in the place. The catering was handled by a farm close and served only seasonal fruits and vegetables. Waste recycling was organized. On the set, natural light was of course preferred to limit energy consumption.

In the end of the shooting, they evaluated, once again the footprint with the Carbon'Clap which showed a very important decrease. Indeed, **the result was just 51 TeqCO₂ which is seven times less** than the « without green-process » footprint made before shooting. This is **a great result**, even more for a shooting using a temporary 3D studio in nature.



It's lunch time ! food was prepared by a local farm



Nominative goblets 1000N = Mylène



Campervan with solar panels, where the guardian slept.



Reflector panels used to strengthen sunlight



*Left : Ph. Delarue, producer
Right : Florent Favier, head of communication department for National Park of Mercantour*

These green measures could be handled **thanks to the support of PACA Region which helps since 2010 productions to turn green.** First with **financial support for some extra costs linked to green actions** (lights, recycling dishes...); **most important with a technical support offered by an expert** who comes on the shooting to inform and advice the team about environmental measures.

36 productions have been supported since 2010, from little documentaries and short films to big-budget blockbusters, **more than a thousand audiovisual technicians involved.**

Some examples of our green shooting :



The person in charge of this technical support has a key role to sensibilize, to help change the habits. The bet is that the shooting crew will then apply these measures on their next shooting.

This sensibilization needs concrete actions such as the distribution of **"green shooting suitcases"** during on set awareness raising visits, an eco-friendly shoulder-bag (made in France with old advertising posters) with a lot of tools to make a shooting greener : *4 sustainable plastic cups from different manufacturers (with contacts to buy it), Several ECOPROD "guide books", a lot of awareness posters (from ECOPROD), ECOPROD Best practices fact sheets, recycling guides and posters, sustainable development guide (label guide for example) from l'ADEME, and an Eco-friendly USB stick with all these guides, posters and even more.*

These suitcases are also available in the film commissions and will be given to the participants of our green-shooting training sessions.

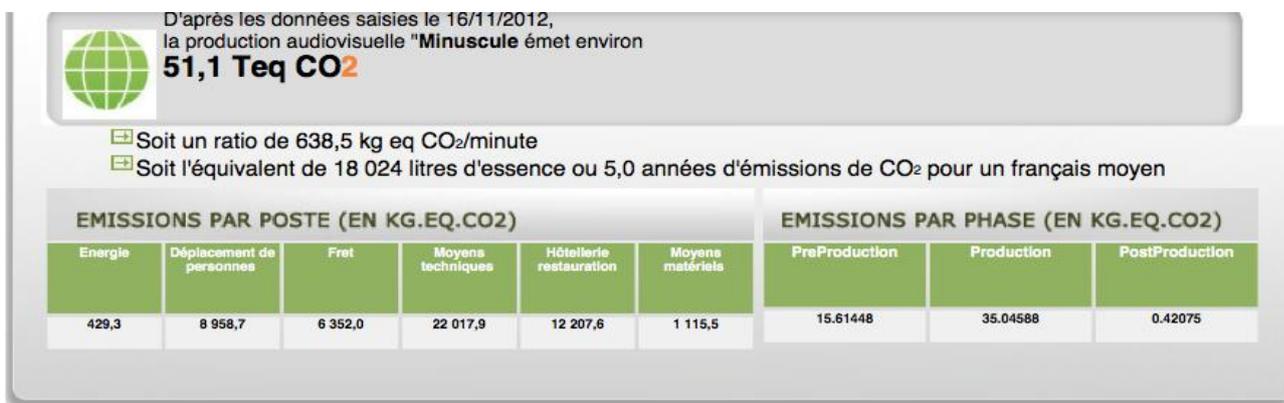
PACA region started a green-shooting training process in 2010 (November and December) with an ecodriving session, which brought on 17 trainees. The training program continued with a stage lighting session (with focus on LED) in April 2013 (11 trainees); a set managers session in march 2014 (9 trainees) ; and a final training for company and technical managers (5 trainees) in march 2014.

The region is betting on a virtuous circle to turn the cinema sector green. Of course it's a long term policy and it faces today great struggle with economic crises, but **no doubt it's going to become a prerequisite to every shooting in the future.**

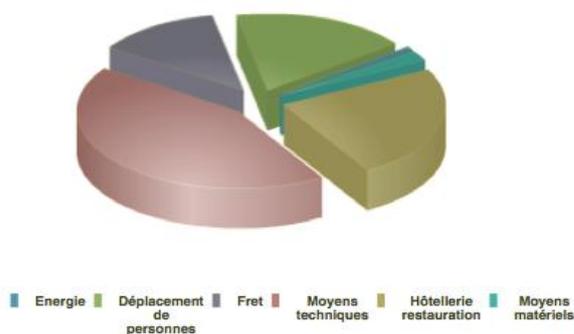
France: the Green Media Consortium Ecoprod. The Ecoprod initiative was created in a concerted action by nine partners, including the Ile-de-France Film Commission, CNC, television stations such as TF1 and France Télévisions, and the environmental agency Ademe. The consortium, in addition to a Green Production Guide and a set of guidelines for sustainable production, has developed Carbon Clap to determine the CO2 footprint of film and television productions. EcoProd's CO2 calculation software is based on the Bilan Carbone diagnostic tool that is used to assess emissions for consumer goods in France. It uses different emission factors than the British model does, so neither carbon calculator is functional all over Europe.

**Minuscule real footprint
TOTAL 51,1 TeqCO2 (= 51 100 KgCO2)**

- Blue : Energie = Energy (429 KgCO2)
- Green : transport de personne = transportation (8 958 KgCO2)
- Purple : fret = shipping (6352 KgCO2)
- Pink : moyens techniques = technical (22017 KgCO2)
- Brown : restauration hôtellerie = accomodation (12207 KgCO2)
- Blue/green : moyens matériels = set construction (1115 KgCO2)



Emissions par poste (T eq CO2)



Emissions par phase (Teq CO2)



Appendix 1

Project Contributors

This report would not have been possible without the following support and contributions:

Film i Väst

<http://www.filmivast.se>
Katarina Krave, CFO
Louise Martin - Training & Education

Filmlance

<http://www.filmlance.se>
Anders Landstrom,
Louise Larsson,
Thomas Nilsson

Bob Film

<http://www.bobfilm.se>
Jan Blomgren - Producer
Andreas Emanuelsson - Production Manager
Jonathan Ridings - Location Manager
Frank Zandhoff - Construction Manager

Wallimage-Bruxellimage

www.wallimage.be
Noël Magis, Manager Bruxellimage
Sophie Cornet (independent eco-consultant)
Bonne Pioche (production company France)
Novak Prod (production company Belgium)
Alizée (Production company Belgium)

Ffilm Cymru Wales

www.ffilmcymruwales.com
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Rainy Day Films

<http://www.rainydayfilms.co.uk>
Rebekah Gilbertson, producer
Nicole Carman-Davies, producer
Emma Bosch, Project Coordinator

Film i Skåne & Oresund Film Commission Southern Sweden

<http://www.filmiskane.se>
<http://www.oresundfilm.com>
Ralf Ivarsson – Director Film i Skane
Mikael Svensson – Film Commssioner

PACA

www.regionpaca.fr
Matieu Tronquit - Project Manager Environment &
Sustainability.
Solenn Gueguniat

Screen South

<http://www.screensouth.org>
Jo Nolan - Managing Director
& The Screen South team

The Maidstone Studios

<http://www.maidstonestudios.com>
Geoff Miles MD
Rowland Kinch
and the team at The Maidstone Studios

Flanders Audio Visual Fund, (VAF)

www.vaf.be
Siebe Dumon, Head of Training & Film Education

Greenshoot

Paul Evans, Managing Partner
Melanie Dicks, Managing Partner
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Fred Kirby, research
Smart Tools team

Film Fondenrung Hamburg

<http://www.ffhsh.de>
Eva Hubert, Executive Director
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Cine-Regio

<http://www.cine-regio.org>
Charlotte Applegren
General-Secretary

Appendix 2

About the Author

The Author

Melanie Dicks, FRSA, IEMA Founder & Managing Partner, Greenshoot.

Melanie has been working in broadcast and film industry for 25 years. A Production Consultant now specialising in sustainability and environmental best practice in the audio-visual sector in the UK for regional and national organisations. She also works with charities offering community support for the socially disadvantaged when repurposing unwanted film production assets.

At Greenshoot, she is accompanying the environmental auditing process of a production locally and now internationally. She will look at the green gains that can be found in every production, through script analysis and budget assessment, analysed by department. Melanie and her team are also in charge of the data gathering-process and for analysing the carbon footprint audit process. In 2013 in partnership with Greenshoot she wrote and developed the first UK wide 'Green' training programme for 1st level entry technicians and runners. Training the next generation of filmmakers to consider environmental best practice as part of everyday business decisions and not as an extra burden.

Melanie Dicks

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Greenshoot Environmental & Sustainability Consultants

Greenshoot's expertise lies in sustainable development, strategy and in compliance locally, regionally and internationally for the audio-visual sector. Through the development of innovative environmental & sustainability management systems, including environmental tracking programme START™, they have delivered award winning strategies culminating in attaining the Business Green Leaders "Best Consultancy 2013" (among a high profile list that included PwC). Greenshoot's clients include, the BFI, Film London, Screen South, Cine-Regio, BSKyB, Working Title Films, Universal Pictures, Warner Bros. Hat Trick TV productions and Avalon

The four founders of Greenshoot all come from the Audio-Visual sector. They are all producers and senior management within the creative sector since 1990 with a collective experience of 80 years and over a 250 shared feature films and TV projects within that time. Since 2009 they have helped over 100 projects become more sustainable by implementing strategies and best practice that mean reduced carbon emissions and costs.

Greenshoot are committed to reducing the environmental impact of film operations in very specific ways that they have developed through their consultancy services over the past 5 years. They promote employee environmental awareness through training and on-set education and give the Audio Visual industry strong leadership through environmental stewardship.

Greenshoot operate their redistribution and education programme on a not-for-profit basis.

www.greenshoot.com

Appendix 3

START

Carbon Tools & Tracking START™

The approach to the Greenshoot case studies and one that Greenshoot have developed over the past 4 years is the START system. **START™** (Sustainability Tracking Asset Redistribution Tools.) is an educational system that takes the user on a sustainability journey throughout the course of a production - irrespective of its size or budget and allows all the pillars of sustainable development to be included.

It involves a pre production assessment, a mid show assessment and a final carbon footprint calculation once the production has wrapped using a robust pan-European carbon calculator that was developed with Carbon Retirement. It includes departmental tracking and benchmarks the TV show or film's sustainability measurements. The educational side of START is a tracking and assessment programme by production stage to see how each department or stakeholder is progressing and adds a weighting point system to environmental impacts, crew engagements and supports a sustainability policy drawn up by the producers or financiers or commission. At the end there is an option to repurpose unwanted production assets or redistribute them - this will also reduce the footprint of the show and can add a financial incentive for the production's bottom line. The asset side of START is in development to launch during 2015. Industry contributions, support, comments and partners are welcome.

Appendix 4

Glossary of Terminology

Biodiversity (Biological diversity)

The variety of life, including the variety of species, the genetic variety within species and the variety of ecosystems of which they are a part.

British Standard (BS) 8900:2006

Guidance for managing sustainable development: BS 8900 is designed to help organizations develop an approach to sustainable development.

British Standard (BS) 8901:2007

Specification for a sustainable event management system with guidance for use: BS 8901 provides requirements for planning and managing sustainable events of all sizes and types. BS 8901 encompasses the entire range of events ranging from large scale conferences and unique events such as the London 2012 Olympic Games to music festivals and air shows. The standard is applicable throughout the sector supply chain encompassing venues, organizing companies and industry contracting firms.

Carbon offsets

Actions to reduce or avoid greenhouse gas (GHG) emissions in one location in order to "offset" GHG emissions occurring in a second location. As carbon dioxide is the most important GHG by volume, completely offsetting carbon dioxide emissions produces a result that is often described as "carbon neutral."

Climate change

The changes to the Earth's climate resulting from increasing concentrations in the atmosphere of greenhouse gases (GHGs), such as carbon dioxide. The Intergovernmental

Panel on Climate Change

Has determined that the marked increase in GHG concentrations since pre-industrial times is the result of human activity, including the burning of fossil fuels (such as oil) land clearing and agriculture. Since GHGs trap heat in the atmosphere, the dominant change has been a rise in average temperatures globally, although there is significant variation, with larger increases at the poles.

Ecosystem

An ecosystem consists of a dynamic set of living organisms (plants, animals and micro-organisms) all interacting among themselves and with the environment in which they live (soil, climate, water, air and sunlight).

Environmental assessment

A process to predict the environmental effects of a proposed project throughout its lifecycle (including construction, start-up, operation and shut-down) and to recommend ways to eliminate, minimize or mitigate those impacts.

Environmental Management Systems (EMS) An Environmental Management System is framework to help businesses manage their impact on the environment and comply with Government legislation. Having an EMS can not only help you to reduce your environmental impact but it can also achieve cost saving and demonstrate your commitment to improving your performance to clients.

You can set up your own EMS as an internal management tool. Alternatively, there are recognised national and international standards that provide accreditation and external recognition of the standards achieved. EMS standards recommended by DEFRA include:

- ISO 14001
- EMAS
- BS 8555
- BS 8909

To fully contribute to an improved environmental performance, a good EMS should:

- Be implemented at a strategic level and integrated into corporate policy and plans.

Environmental policies An environmental policy is a written statement outlining an organisation's mission in relation to managing the environmental effects and aspects of its operations. All organisations, to some degree, have an effect on the environment. Having an environmental policy in place demonstrates your green credentials to your shareholders, clients, customers and employees. Increasingly, customers are demanding that businesses prove their environmental credentials; this is particularly true if you deal with the public sector where there are top-down requirements from Government that all their procurement activities meet certain green standards.

Environmental policies are free and can help make sure you not only stay within the law but can also help you to improve your cost controls and conserve raw materials and energy.

Having an environmental policy in place is essential if you want an Environmental Standard (such as ISO 14001 or registration under EMAS), which is a technical document that describes an agreed and recognised way of doing something.

For information and advice on how to write an environmental policy please see Envirowise: <http://www.envirowise.gov.uk/home.aspx>

Environmental/Social/Economic Performance Indicators

Performance indicators relating primarily to environmental, social and economic areas.

Footprint In a spatial context, the area occupied by permanent and temporary facilities and their associated activities. In an ecological context, it measures humanity's demand on nature by considering the resources consumed and resources affected to support our activities.

Global Reporting Initiative (GRI)

A global, multi-stakeholder initiative to develop a common framework for sustainability reporting. The Sustainability Reporting Framework includes the Sustainability Reporting Guidelines, now in their third version, Sector Supplements and Protocols. The GRI is a collaborating centre of the United

Nations Environment Program (UNEP).**ISO 14001**

An international standard that sets requirements for Environmental Management Systems. Environmental Management Systems should address policy, planning, implementation/operation, checking/corrective action, and management review.

Sustainability (also often referred to as Environmental Sustainability)

Meets the needs of the present without compromising the ability of future generations to meet their own needs." (Bruntland Commission). The concept of sustainability usually includes the areas of environmental, social, and economic development.

Sustainability Management and Reporting System (SMRS)

A performance-based system that defines our sustainability objectives, fosters an integrated approach to achieving them, and provides transparent reporting on results relative to sustainability related bid commitments and corporate goals, to both internal and external audiences.

Sustainability Reporting

The practice of measuring, disclosing and being accountable for organizational performance while working towards the goal of sustainable development. A sustainability report provides a balanced and reasonable representation of the sustainability performance of the reporting organization, including both positive and negative contributions.

Triple Bottom Line

Another term for 'sustainability' that refers to the idea that environment and social factors should be considered in addition to the financial bottom line.

Zero Waste

The concept that all activities are designed to eliminate waste and that any residual waste is recovered to be used as inputs to other processes

Appendix 5

Local and International Standards

In essence, a standard is an agreed way of doing something. It could be about making a product, managing a process, delivering a service or supplying materials – standards can cover a huge range of activities undertaken by organizations and used by their customers.

Standards are the distilled wisdom of people with expertise in their subject matter and who know the needs of the organizations they represent – people such as manufacturers, sellers, buyers, customers, trade associations, users or regulators.

1. EMAS

The EU Eco-Management and Audit Scheme (EMAS) is a voluntary scheme that allows all types of organizations to improve their environmental performance and achieve recognition for doing so. Its origins lie in European Council Regulation 1836/93, which allowed participation by industrial sector organisations within the EU in the Scheme. This Regulation is now in its third version and extends to all types of organisations. The aim of EMAS is to recognise and reward those organisations that go beyond minimum legal compliance and continuously improve their environmental performance.

2. The BS8909

The inception of BS 8909 was led initially by the UK Film Council and then the BFI with cross-industry partners including Ffilm Cymru Wales, John Newbigin - Chair of Creative England, Film London, distribution companies, the Writers Guild and the actors union, Equity. It also included film industry specific consultants (Greenshoot) to develop the local standard to be then taken up internationally into an ISO - International Standard. The BS8909 provides framework that practical steps and training are now being built around.

3. The BSI group

British Standards Institute (www.bsigroup.com) also known in its home market as the British Standards Institution is a multinational business services provider whose principal activity is the production of standards and the supply of standards-related services. The BSI portfolio extends to more than 30,000 current standards. They are designed for voluntary use so it's up to you – you're not forced to follow a set of rules that make life harder for you, you're offered ways to do your work better. Standards are knowledge. They are powerful tools that can help drive innovation and increase productivity. They can make organizations more successful and people's everyday lives easier, safer and healthier.

- http://ec.europa.eu/environment/emas/documents/legislative_en.htm
- <http://www.be-smarter.eu/en/library/eu-regulations/emas-regulations.html>
- www.bsigroup.co.uk

Appendix 6

Further Associated Reading & Links

| | |
|-------------------|----------------------------------------------------------------------|
| FilmiSkane | www.filmiskane.se |
| Film i Väst | www.filmivast.se |
| Ffilm Cymru Wales | www.ffilmcymruwales.com |
| Screen South | www.screen-south.org |
| VAF | http://www.vaf.be/ |
| PACA | www.regionpaca.fr |
| Hamburg | http://www.ffhsh.de |
| Wallimage | www.wallimage.be |
| Greenshoot | www.greenshoot.com |
| Cine Regio | http://www.cine-regio.org |

| | |
|-------------|--------------------------------------------------------------------------|
| Ecoprod | http://www.ecoprod.com |
| BFI | www.greeningfilm.com |
| BBC & BAFTA | www.mediagreenhouse.co.uk |

Birgit Heidsiek www.greenfilmshooting.net
http://filmlondon.org.uk/filming_in_london/london_filming_partnership/green_screen
http://ec.europa.eu/clima/policies/finance/budget/index_en.htm
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<http://www.bfi.org.uk/about-bfi/policy-strategy/sustainability>

The EU Commission pages for sustainable development
<http://ec.europa.eu/environment/eussd/>

The World trade Organisation for sustainable development
http://www.wto.org/english/tratop_e/envir_e/sust_dev_e.htm

The World business solution for sustainable development
<http://www.wbcsd.org/home.aspx>

Sweden

- <http://www.government.se/sb/d/2066>
- <http://www.regeringen.se/content/1/c6/02/54/57/86c2efb7.pdf>
- http://www.un.org/esa/dsd/dsd_aofw_ni/ni_pdfs/NationalReports/sweden/Full_text.pdf
- http://www.sida.se/Global/Nyheter/Statement_on_Swedish_Leadership_for_Sustainable_Development_13_May_2013.pdf
- <http://www.powercell.se/join-us/news/>
- http://www.iea.org/textbase/nppdf/free/2013/sweden2013_excerpt.pdf
- <http://powertrekk.com>⁴

Wales

- <http://wales.gov.uk/topics/sustainabledevelopment/?lang=en>
- <http://www.ccg.gov.uk/landscape--wildlife/protecting-our-landscape/special-landscapes-->

⁴ myFC is an innovative Swedish fuel cell technology company that develops and industrializes solutions for powering portable electronics. Having secured numerous patents around proprietary shape-flexible fuel cell systems with record high power density, myFC is now launching its own commercial portable charger under the PowerTrek brand.

sites/sustainable-development- fund.asp

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